Mâmawihitowin: Bringing the Camps Together: Learning about Indigenous Cultural Security for Improved Maternal Healthcare

by

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Abstract

In the Cree language, mâmawihitowin loosely translates as “bringing the camps together for a common goal”. Indigenous health outcomes are generally poorer than the mainstream population. Grounded in Community Based Participatory Research (CBPR) principles, this thesis examines the development and implementation of a cultural security intervention for healthcare providers and staff who provide perinatal care for women and families from the Cree communities of Maskwacis. A CBPR project has been underway in collaboration with the community of Maskwacis for over four years (the “ENRICH First Nations Project”), aiming to understand how to better support pregnant women from the community. This thesis is an extension of the ENRICH project. The purpose of this study was to give an opportunity to HCPs and staff to experience my community in a positive and meaningful way. Other studies have shown culture awareness training is evolving to be more inclusive, but if not done appropriately can potentially do more harm than good. The results show that using a CBPR approach specific to my home community of Maskwacis, and through an Indigenous lens showed when a research study is community led it will yield rich and unique results that are ultimately beneficial to the community. Using a mixed methods approach for data collection and analysis provided rich results and much more comprehensive understanding of the research question. This thesis not only demonstrates the HCPs and staff experiences of participating in a cultural security intervention, but also establishes the effectiveness of a fully community led project and its impact in a healthcare setting.

Preface

This thesis is an original work by Grant Bruno. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name "Using a Cultural Experience-Based Intervention for Health Care Providers to Enhance Their Cultural Awareness.", Pro00073909, 7/7/2017

The research is a part of a much larger Alberta wide research project ENRICH, my co-supervisor Dr. Rhonda Bell is the Principle Investigator for this study and is a professor in Agriculture Food and Nutritional Sciences. Dr. Brenda Parlee, also my co-supervisor, is a professor in the department of Resource Economics and Environmental Sciences and the Principle Investigator for the Tracking Change project. My Community Advisory Committee included Elders Rick Lightning, Bruce Cutknife, Ida Bull, Muriel Lee, Margaret Montour, and Bonny Graham. Dr. Richard Oster, a Research Associate with ENRICH, provided guidance while I was in the "field". Quantitative development and analysis were done with assistance of Dr. Rhonda Bell, and Dr. Megan Jarmin, a post-doc with ENRICH. Qualitative development was done with the guidance and assistance of Dr. Rhonda Bell, Dr Brenda Parlee, and Dr. Richard Oster. I was responsible for the data collection, analysis, and manuscript composition. This thesis is an original work by Grant Bruno. No part of this thesis has been previously published except in abstract form/

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Nanâskomowin is a Cree word and translates as the act of being grateful. An Elder once told me to speak from the heart, so that's what I will do with the acknowledgements. This thesis would not have been possible without the amazing support and guidance from so many people and organizations. I am grateful to have been able to give something back to my community through research and how much research has given me.

In my final year of my undergrad I met Dr. Richard Oster for coffee to discuss a summer position as a research assistant with the ENRICH First Nations study. I needed a job and he needed a community member. Little did either of us know what this seemingly normal coffee would evolve into. Fast forward a year, and while we were on one of our many hour long drives to Maskwacis the conversation turned into what my future plans were.

Growing up on a reserve the idea of attending post-secondary was not something that I could not even imagine. I am high school drop-out. The first time I attended college, half way through the first year I dropped out. I am a second-generation residential school survivor. My father was kicked off the reserve as a child and was homeless at 16 years of age. I have never had the opportunity to meet either of my nohkomak (grandmothers), both attended residential school and were taken way to soon. One grandfather walked out on his family and the other was not given an equitable opportunity by society. Amazingly both of my parents broke generational curses and provided me the guidance, support, and compassion that was not provided to them growing up. To all of my family and to those that came before me, I may be the first from our family to attend and succeed in post-secondary, but I will not be the last nanâskomowin.

In the Cree way the Elders would share that children chose their parents, and when I was 21 years old I got the amazing news that I was going to become a father, to our surprise it was going to twin boys. I had a choice to make, either find a great paying job in the oil field, or enroll into post-secondary. That fall I was a full-time student again, but with a lot motivation as I had two sons to provide for now. I started my undergrad at Red Deer College and would travel an hour each way, after two years I transferred to the University of Alberta and commuted an hour and half each way because I was determined. Eventually I had another son, and having three sons, a bachelors degree was not enough. Marshall, Oliver, and Anders, nanâskomowin for choosing me to be your father.

After our discussion Dr. Oster brought the idea to Dr. Rhonda Bell and Dr. Brenda Parlee and they agreed to co-supervise me, and through previous work I knew I would have the support guidance to be able to do good work in Maskwacis and for everything each of you have done for me. Dr. Oster, who took a chance on kid from the reservation, we started as strangers, but I am

honored to call you my ceremony brother. Dr. Bell and Dr Parlee, you gave me freedom to research something that was close my heart, and without your support, guidance, and patience, none of this would have been possible. For having all three of you in my life nanâskomowin.

To the communities of Maskwacis for all of the access to knowledge, ceremony and great role models. To Maskwacis Health Services and the Wetaskiwin Primary Care Network, your actions have show me and the communities of Maskwacis that you care and are willing the build meaningful relationships. Our Community Advisory Committee, I always looked forward to our meetings as they kept me grounded. Specifically Elders Rick Lightning and Bruce Cutknife, my role models, I could listen to either of you for hours. Dragana Misita, your kind words and our random discussions kept me balanced. To the rest of my research family at ENRICH your kind words and support helped me through some challenging times.

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Abbreviation

HCP	Healthcare Providers
PCN	Wetaskiwin Primary Care Network
MHS	Maskwacis Health Services
REDCap	Research Electronic Data Capture
CBPR	Community Based Participatory Research
IHS	Indian Health Services
CQ	Cultural Intelligence
CQS	Cultural Intelligence Scale
MSCS	Maskwacis Specific Cultural Scale
CAC	Community Advisory Committee

Chapter 1: Introduction

"So those prints that we offer to the Sundance and also the prayers and also the ceremonies, those are all keeping everyone safe in a spiritual sense, like yourself and all the different workers in the community that are participating within our program."

- **Maskwacis Elder**

1.1 Background

In 2015 the Truth and Reconciliation Commission of Canada released its *94 Calls to Action*. The *Calls to Action* are comprehensive, and call to action 23. iii specifically states, "[w]e call upon all levels of government to: provide cultural competency training for all healthcare professionals" (2015, p.3). Furthermore, the United Nations Declaration on the Rights of Indigenous Peoples article 24.1 states, "Indigenous individuals also have the right to access, without any discrimination, to all social and health services" (2008, p.9). These legal documents provide a foundation for addressing Indigenous health disparities.

For the past three decades, cultural awareness training has evolved to address health disparities and improved healthcare quality for minority populations. There is no consensus on the terminology around cultural awareness, and this will be discussed in the literature review. Thomson (2005) describes the cultural differences between health service providers and Indigenous peoples as a 'cultural chasm' that has acted as a barrier to positive health outcomes for Indigenous peoples. Addressing and confronting this 'cultural chasm' has been a challenge for health professionals, educators, and researchers working with Indigenous populations. Furthermore, recent findings suggest just knowing about patients' cultures is not sufficient to become a culturally competent healthcare professional. Healthcare professionals must carefully reflect on their own cultural attitudes, beliefs, and knowledge to achieve the prerequisites of cultural competence. Cultural competence is an ongoing process that requires a healthcare provider's commitment to a new way of thinking, which may evolve over time and with exposure to new and different groups (Suh 2004; Tervalon & Murray-Garcia 1998; Collins & Pieterse, 2007). Cultural awareness training has evolved from being seen as a destination to

being viewed as an ongoing journey for healthcare professionals. This thesis delves into the challenge of cultural security for the community of Maskwacis to learn more about how maternal healthcare can be improved in this First Nations community in Alberta, Canada.

1.1.2 History of Maskwacis

In 1891, Sir William Cornelius Van Horne, then Canadian Pacific Railway president, named a flag station after his favourite Dutch painter, Meinhardt Hobbema, and name Hobbema identified the community for over hundred years. Fast forward to 2014 and the community of 'Hobbema' restored its original Cree name to Maskwacis, which translates into as Bear Hills. The name Maskwacis reflects its unique topography and Cree culture, both of which are seen as inherent strengths. Maskwacis is made up of four reserves, Neyaskwayak (the Northern treeline) or Ermineskin Cree Nation; Kispahtinaw (the end of the hill) or Louis Bull Tribe; Akamihk (across – the river) or Montana First Nation; and Nipisihkopahk (willow meadows) or Samson Cree Nation. (Samsonscree.ca, 2013). Politically, each band has separate Chief and Councils, which means four different decision-making bodies and four different sets of agendas, yet health services on the four reserves are somewhat centralized allowing for better access. Maskwacis Health Services (MHS) provides the majority of day to day health care for residents of Maskwacis

1.1.3 ENRICH First Nations

In 2013, the Alberta ENRICH research team came together with the goal of promoting healthy pregnancies for women and their families. By finding unique, appropriate, and effective strategies that meet the needs of women and healthcare providers. An important aspect of ENRICH is to work with an Indigenous community to help address pregnancy-related health. Based on previous research relationships between the Dr. Richard Oster (Researcher from the University of Alberta), leaders from Maskwacis Health Services, as well as a community-voiced need for improved pregnancy health, a Community Based Participatory Research (CBPR) collaboration was developed. Through CBPR, ENRICH has adopted a strength-based approach in all the work done with Maskwacis and this has allowed for the community of Maskwacis to guide the research in a meaningful and positive way. ENRICH First Nations has multiple moving parts to it, including, an Elders' mentorship in pregnancy study, an Indigenous fatherhood study,

and this thesis. I have been research assistant with ENRICH since May 2016. There are plans put in place to continue this work. All of the work done with Maskwacis uses a strength-based approach. The

1.2 Research Objectives

This thesis research is based around the question, can a cultural security intervention for health care providers (HCPs) and staff enhance their cultural awareness in ways that improve care for Indigenous families? Indigenous maternal and infant health outcomes are generally poorer in comparison to mainstream Canadians (Waldram et al, 1996, Gracey and King, 2009, Wright et al, 2018). Lack of cultural security is routinely cited as a major influence on the effectiveness of interactions between Indigenous patients and HCPs (Downing et al, 2011). Furthermore, a cultural security intervention has the potential to not only build HCP awareness on the issues affecting Indigenous peoples, but also provides an opportunity for HCPs to engage with Indigenous communities on a meaningful level. More specifically, in our recent qualitative work, prenatal HCP participants identified the need for experiential learning opportunities and wanting to learn from and with Indigenous peoples (Oster & Bruno et al, 2016). HCPs and staff wanted to engage with the Indigenous community they serve on a more personal and genuine way in order to be able to better understand and support pregnant women. Similarly, HCPs felt there is need for culturally informed care and this would lead to better relationships with patients, safer care environments, more context-specific care, and overall improved pregnancy outcomes. Additionally, in a recent ENRICH study done with Indigenous fathers (Oster & Bruno, 2018) the concept of cultural awareness was brought up often and fathers wanted their HCPs to be more aware of the culture of Maskwacis.

The overall purpose of this research is to determine whether an experiential-learning intervention can enhance cultural awareness among HCPs and staff to build cultural security for HCPs and staff that provide support to pregnant Indigenous women. A community-based participatory research (CBPR) project has been underway in collaboration with the community of Maskwacis for over three years (the "ENRICH First Nations Project"), and aims to understand how to better support pregnant women from the community. Bringing together the Wetaskiwin Primary Care Network, Maskwacis Health Services, Elders, and members of Maskwacis in an ongoing and meaningful fashion was seen as the logical way of building and maintaining

essential relationships, improving cultural security and understanding, and meeting the needs/wants of the community.

The specific objectives of this intervention:

1. In collaboration with Elders, community members, and HCPs, a) to develop the concept of 'cultural security' as it pertains to maternal health in Maskwacis and b) develop a Maskwacis-specific cultural awareness scale for assessing this construct in HCPs and staff providing prenatal care.

2. To assess whether a community-driven cultural security intervention (including lunch and learn sessions, traditional ceremony participation, pow-wow attendance, etc.) influences the knowledge, attitudes and perceptions of prenatal HCPs and staff working with Maskwacis using the standardized cultural intelligence scale (CQS) (Ng et al, 2012) and a Maskwacis-specific cultural awareness scale (from obj.1).

3. To examine changes over time in responses of prenatal health care providers and staff to the cultural security intervention and to compare responses between health care providers and staff employed by two different medical clinics who serve pregnant women from Maskwacis.

4. Qualitative semi-structured exit interviews were used to better understand the context of the intervention, to describe effectiveness on a personal level, and provided the participants with an opportunity to give first hand account of their experiences with the intervention.

In addition to the intervention goals described in the first chapter, this thesis' objectives are as follows,

1. Provide background information on the process and implementation of cultural awareness training, for HCP and staff who provide care for Indigenous populations and specifically

for Maskwacis.

2. Lay out research methods appropriate to the research question.
3. Analyze quantitative and qualitative data and describe the results.
4. Identify emerging themes from the data and map out how this research can be used in other settings.

1.3 Health: The Indigenous Experience

In order to understand the complexities of Indigenous health, a broader understanding of the histories and relationships related to health care in Indigenous communities must be established. Historically, Indigenous communities in Canada had their own well-developed systems of care based on cultural norms and practices; however, several hundred years of colonization has negatively affected both the health and quality of care available for Indigenous peoples including the peoples of Maskwacis in Alberta. After contact, traditional Indigenous societies were dismantled, dispossessed, and foreign powers imposed destructive policies (Gracey & King, 2009; Lavallee & Poole, 2009). These destructive colonial policies created the conditions for ongoing racial prejudice that has been institutionalized (Alfred, 2005). Furthermore, social inequalities that resulted from colonization can be observed in Indigenous health outcomes. Indigenous populations have significantly higher rates child mortality, maternal morbidity, infectious disease burdens, shorter life expectancy, higher rates of malnutrition, substance abuse, lifestyle-related chronic diseases and conditions, accidents, homicide, violence, and suicides than the mainstream population (Gracey & King, 2009; Wilson &Young, 2008).

Racial and ethnic disparities in health are well described in the literature, with data showing that members of Indigenous populations suffer disproportionately from various diseases. (Fontaine, 2018**;** Waldram et al, 2007; Westerman 2004). Indigenous populations are burdened with negative health outcomes for multiple reasons. Negative Indigenous health outcomes can be fleshed out when examining social determinants of health and include ongoing colonial policies that act as barriers to quality healthcare (Waldram et al, 2007). Within Indigenous social determinants a main area of interest is access to healthcare. Health access not only includes having affordable and local health services, but also includes cultural appropriateness and accessibility of that care (Marrone, 2007). Indigenous health and the influencers surrounding it have become a growing area of interest for health practitioners, government, and researchers

working with Indigenous peoples. Although there are severe health disparities in Indigenous communities, it is important to recognize that there are positive health outcomes that can be foundational for quality future health services. Thus, developing culturally safe learning environments for health practitioners and their supports is a key step in the right direction in positively influencing Indigenous health outcomes.

1.4 Health in the Context of Maskwacis

Indigenous people in Canada have dealt with, and continue to deal with, the long legacy of colonial policies that have resulted in disparities across all health outcomes (Frohlich et al, 2006). The most influential impact of Indigenous health in Canada was the implementation of the *Indian Act of 1876* (Frohlich et al, 2006). The Indian Act set the stage for future oppressive policies such as the reserve system, Indian residential schools, Indian hospitals, and the outlawing of Indigenous ceremonies, just to name a few. These policies still contribute heavily to negative health outcomes in Maskwacis. For example, the Ermineskin Catholic Boarding School, located in then Hobbema, was one of Canada's largest residential schools opened in 1870 and remained until 1991 (Koch, 2015). The abuses children endured at these institutions have only come to the collective conscious of Canadians since the then Prime Minister Stephen Harper's legally written apology (Harper, 2008).

Maskwacis was also home to the Hobbema Indian hospital which provided healthcare to local residents. Chiefs, in what was then Hobbema, strongly advocated for a hospital in the community and even offered to put up their own capital to fund it, and saw it as recognition to their treaty right to health, but fearing having Indian control over the hospitals, bureaucrats from Indian Health Services (IHS) decided to fund the hospital themselves and it opened in 1951 (Lux, 2016). Eventually and after seeing Hobbema's new-found oil revenue IHS bureaucrats enacted new policies that were designed to allow Hobbema to "stand on their own feet" (Lux, 2016 p.146). The Hobbema chiefs were angered by being left out of the policy making discussions and rejected the ultimatum, and in 1962 IHS decided to turn the hospital into an outpatient clinic, and residents were required to travel to the Wetaskiwin hospital for care (Lux, 2016). This led to worse care for Hobbema residents, and resentfulness from Wetaskiwin residents,.

> When the Wetaskiwin Hospital became crowded in the mid-1960s citizens resented Hobbema residents taking up beds they considered rightfully theirs. A 1966 petition from the Alberta Local Council of Women requested that the Hobbema Hospital be Reopened because the community hospital was overcrowded: "Often a bed is unavailable because of the large number of patients from the Hobbema reservation. We feel that this matter requires urgent attention." After a further expansion in the 1960s the Wetaskiwin Hospital fell into a serious deficit, which the Hospital Board blamed on Hobbema Residents, who accounted for about 30 percent of admissions. Why should local taxpayers be expected to fund a federal responsibility (Lux, 2016, p.148)

This quote speaks to the tense relationship Maskwacis has had with Wetaskiwin, and continues to have. There is anecdotal evidence that residents from Maskwacis still feel that employees at the new Wetaskiwin hospital are still resentful toward them and it has led to a lower level of care.

Over the last fifty years, the healthcare systems in Maskwacis has been negatively affected by colonial policies of the federal government. For example, during the oil boom of the 1970s the Department of Indian Affairs enacted a hands-off approach to managing the four bands' new-found income. The Indian Affairs did little to help prepare the reserve of Maskwacis for the influx of new capital and as one Chief explains, "the federal government just pulled out. They say you have money, that's it, period. They are glad we have money because [now] they can have nothing to do with us" (York, 1990, p.90). It should be noted that 70% of all oil royalties were deposited into an Indian trust account which was controlled by the Department of Indian Affairs (York, 1990). Financial prosperity usually brings stability and better health outcomes. Yet, during the Hobbema oil boom suicide rates rose rapidly and alcohol deaths went up, and these trusts are still held in Ottawa and anytime Chief and Council want to use their own money for a project they must go through the bureaucrats at Indian Affairs and prove to them that spending their own monies is worthwhile.

Currently, the First Nations and Inuit Health Branch (FNIHB) provides health care on reserve. FNHIB provides services in Maskwacis such as healthy child development; community mental wellness; youth suicide prevention; addictions prevention and treatment; healthy nutrition and activity promotion; disease/injury risk factor prevention; and community capacity building initiatives. (First Nations and Inuit Health Branch, 2005). Although these services are provided in Maskwacis, members still tend to use the services in Wetaskiwin.

When examining pregnancy-related health outcomes in Maskwacis as defined using adimistrative data available through Alberta Health and Alberta Health Services, there is very little published information. The following table examines the maternal health outcomes in those living in Maskwacis compared to non-First Nations and other First Nations in Alberta. As the table show, Maskwacis maternal health outcomes are generally worse than non-First Nations and even other First Nation communities. This table does provide valuable insight into the deficits of Maskwacis, but it certainly does not provide the entire story of health outcomes.

Table 1

Maternal characteristics, antenatal risk factors and pregnancy outcomes of pregnancies from women from Alberta, 2000-2014. Values are age-standardized prevalence per 100 (95% CI) or mean (SD) as appropriate.

	Maskwacis	**Alberta First Nations**	**Alberta non-First Nations**
Total number of deliveries	4,613	50,643	645,168
Average age	22.4 (5.9)*†	24.7 (5.8)	28.2 (5.7)
Gestational diabetes	6.7% (5.9-7.5)*†	5.4% (5.2-5.6)	3.7% (3.6-3.7)
Pre-existing diabetes	1.2% (0.9-1.5)†	1.2 % (1.1-1.3)	0.4% (0.38-0.42)
Pre-pregnancy weight >91kg	12.3% (11.3-13.2)†	12.4% (12.1-12.6)	7.8% (7.7-7.9)
Smoking anytime during pregnancy	63.3 (62.0-64.7)*†	51.4% (51.0-51.9)	24.1% (23.9-24.2)
Alcohol use anytime during pregnancy	17.3% (16.2-18.4)*†	9.3% (9.1-9.6)	2.6% (2.5-2.6)
Drug dependent during pregnancy	11.1% (10.2-12.0)*†	6.2% (6.0-6.5)	1.6% (1.6-1.7)
Hypertension (≥ 140/90)	0.9% (0.7-1.2)*†	0.7% (0.6-0.8)	0.6% (0.5-0.6)
Pregnancy induced hypertension	4.2% (3.6-4.8)†	4.3% (4.1-4.5)	5.1% (5.1-5.2)
Anemia (hemoglobin<100g/L)	3.3% (2.7-3.8)*†	2.8% (2.6-2.9)	0.7% (0.66-0.73)
Caesarean section	12.4% (11.5-13.4)†	12.2% (11.9-12.5)	9.0% (8.9-9.1)
Stillbirth	3.2% (2.7-3.7)*†	1.9 % (1.8-2.0)	0.7% (0.69-0.74)
Birthweight (g)	3417 (727.3)†	3409 (706.1)	3321 (619.2)

*Significant difference ($p < 0.05$) between Maskwacis and Alberta First Nations
†Significant difference ($p < 0.05$) between Maskwacis and Alberta non-First Nations
Data sourced from the Alberta Perinatal Health Program and Alberta Health in collaboration with Maskwacis Health Services

1.5 Perspectives of the Researcher

I have strong connections to the community of Maskwacis and was raised in the nearby Cree community of Enoch. As a Cree person with direct experience, family members, and knowledge of the themes and issues raised through the research, it is important to recognize the opportunities and challenges of being an insider researcher.

In simple terms, insider research is described as the study of one's own group or society (Naples, 2013). There are strengths and weaknesses to the insider research process. The strengths include knowledge, and this comes in the form of nuanced practical and historical information, interaction, or the ability to approach situations and participants in a way that is acceptable to the community, and access, or a more expedient connection (Greene, 2014). The weaknesses of insider researcher are described as it being too subjective, or the researcher making judgements based on prior experiences, and biased or projecting the researcher's views onto the research (Greene, 2014). Although it could be argued that all social researchers must address these "weaknesses'" in any research they do, conducting research with your home community has the potential to raise issues around validity and bias.

One of main ways a researcher can address potential issues in the insider research process is through ongoing reflexivity. Through a reflexive process the insider researcher must explore their understandings of the strengths and weaknesses of the research methods and theoretical underpinnings being used, and reframe them if needed (Brannick, 2007). As the research process moves forward, ongoing reflexivity is key in addressing insider research issues. As problematic as insider research can be, it also presents unique opportunities. For example, the idea of taboos, as an insider researcher I am able to navigate sensitive situations, such as protocols around ceremony. In the context of Maskwacis there are specific protocols to participating in ceremony and requesting traditional knowledge. These protocols may vary depending on the community, and also may vary from family to family. This type of insight would be beneficial to a researcher, but is nuanced so that an outsider may not be able to navigate the community or family specific protocols in the same way an insider would. Ultimately, "the insider/outsider discourse should not be seen as a problem…which researchers must overcome, but it should be seen as an opportunity for new insights into the co-construction of knowledge" (Kwame, 2017, p. 223). During the research process is was critical for me to have a dialogue with both the Elders and my supervisors, these conversations gave me insight into my own biases. For example, I was

uncomfortable with discussing ceremony, but with guidance and reassurances from the Elders I was able to feel confident about writing ceremonial experiences because they put their trust into what I was doing.

Finally, "[i]nsider research needs to be as ethical and respectful, as reflexive and critical, as outsider research. It also needs to be humble. It needs to be humble because the researcher belongs to the community as a member with a different set of roles and relationships" (Smith, 1999, p. 140). Although, it can be argued that the insider researcher must aspire to be more than these, because unlike the outsider researcher, the insider still has to interact and live and interact with their community long after the research study is completed.

As a community member, and registered to Samson Cree Nation, I need to upfront about the biases that I hold toward my community. I am aware my community does exhibit toxic environment traits such as gang violence, suicide, and addiction, but for me to focus on the negatives would essentially be me feeding into the negative discourse that surrounds so many Indigenous communities. While I am aware of these negatives, my own personal philosophy is to acknowledge them, but do not focus on hem. The Maskwacis that I know on a personal level is full of kinship, unwavering support for one another, and tremendous amounts of resiliency. Whether I am struggling through grad school or just want to be around good people, the first place I go is Maskwacis. Maskwacis raised me, and adding researcher to my identity allows me to give something back.

1.6 Challenging Indigenous Deficiency Discourse

Historically there has been a focus on the Indigenous deficiency in various disciplines such as health, education, as well as in media, and this creates what is known as a deficit discourse. Australian scholars argue that the biomedical approach to Indigenous health and how the burden of disease is measured through the absence of disease creates a deficit discourse that is widely accepted (Bourke et al, 2010; Ford et al, 2013). For example, in Indigenous communities globally, Indigenous populations are often viewed as problems to be solved. This rhetoric has been an enduring feature in Canada's colonial project. In 1920 the head of the Department of Indian Affairs, Duncan Campbell Scott, is infamously quoted, "I want to get rid of the Indian problem.... Our objective is to continue until there is not an Indian that has not been absorbed into the body politic, and there is no Indian question, and no Indian Department…" (Titley,

2004, p. 50). It can be argued that although this narrative is less explicit today, Canada's policies toward Indigenous peoples are still the same.

The media influences how populations perceive people from different culture from their own. In 2018 alone, mainstream news headlines such as ''We are dying': Maskwacis community members overwhelmed by suicides" (Morin, 2018), "RCMP make arrests after 3 victims stabbed in Maskwacis home invasion" (CBCnews.ca, 2018), and "Man arrested, firearm seized after shot fired in Maskwacis area" (Romero, 2018) dominated news headlines and continually frames Maskwacis as a community in perpetual crises. The media narrative around Maskwacis has had an impact on the way outsiders perceive the community and has led to what is known as moral panic, especially when taken in the context of broader social ideologies that influence perspectives on Indigenous peoples (Koch, 2016). Although there has been a slight shift with more media headlines highlighting the positives of Maskwacis, these stories are usually shared by smaller local news outlets.

As mentioned earlier the ENRICH project has taken a practical stance against this deficit discourse, specifically, in the context of Maskwacis. For example, when the study for Indigenous fatherhood was being planned by our stakeholders, it was deemed important to engage with Indigenous fathers who were recognized as doing a good job. The reason was to highlight the strengths and focus on what kinds of supports and upbringing allowed these fathers to provide positive support to their partners (Oster & Bruno et al, 2018), and to my knowledge it is a story that has not been told in the media except when shared by the ENRICH group. With the guidance of the Community Advisory committee one of the interventions and thesis objectives is to address the deficiency discourse by showcasing and engaging with the strengths of Maskwacis.

1.7 Conclusion

In the era of reconciliation, mainstream Canadians want to engage in the effort, yet do not know how or may not be aware of any opportunities. The TRC Calls to Action and UNDRIP provide guidance, and in the discipline of health research can be powerful tools in furthering the reconciliation agenda. Providing HCPs and staff with a meaningful opportunity was our Community Advisories Committee's goal. Historically and currently, health services have been a contentious issue in Maskwacis, so to bring various stakeholders together and build relationships was a powerful experience.

Chapter 2: Literature Review

2.1 Introduction

This thesis focuses on challenges of improving maternal health care through a community-led cultural security intervention in Maskwacis. Understanding this work in cultural security requires consideration of multiple concepts and literatures. In this chapter, I offer an overview of the power dynamics of healthcare, concepts related to culture awareness training as well as current trends.

2.2 Power, Privilege, and Racism

The idea of whose reality gains dominance and legitimacy is one that needs to be addressed across all intersections of healthcare. The theme of power relations is prominent in the literature on cultural awareness training and when examining the relationship between healthcare provider and patient. In Lupton's (1994) critical reading, the dominant approach referred to the existing state of affairs, or the status quo, to the ways that things are typically done in efforts of health promotion, and is exemplified by health campaigns that seek to modify knowledge, attitudes, and behaviours of target populations including healthcare providers. Lupton's critique argued that efforts of health promotion are typically based on assumed scientific rationality, moreover they draw upon individualistic assumptions about health risks and can be ignorant of cultural contexts, and potentially unresponsive to the sociocultural–economic contexts within which health experiences are located (1994).

The role of racism is also prominent in the literature and is described as a fundamental social determinant of health where interpersonal and institutional racist attitudes are often embedded in social, structural and political contexts (Harris et al, 2006). The context here refers to when Indigenous populations are interacting with the healthcare system. An example of healthcare failing an Indigenous person is the case of Brian Sinclair. In 2008, Brian Sinclair died in Winnipeg hospital waiting room after waiting for 35 hours for care, Sinclair who had a history of substance abuse was never triaged, and observed at least 17 times but repeatedly ignored by healthcare staff; the coroners estimated he was dead for 2 to 7 hours before anyone noticed (Lett, 2013). The case of Sinclair is an extreme example, but does shed light on what Indigenous peoples experience on a day-to-day basis in Canada.

Addressing racism power, privilege, and racism in the healthcare setting can be a daunting task. Beagan (2003) provides a clear roadmap by stating,

> A course intended to produce physicians able to work effectively across differences of race, culture, gender, sexual orientation, religion, and so on must explicitly address power relations. It must be about racism, not just cultural difference; it must be about homophobia and heterosexism, not just differences in sexuality; it must be about sexism and classism, not just gender differences and the health issues faced by 'the poor.' Most importantly, such a course must be focused on helping students develop ways to recognize and challenge their own biases, their own sources of power and privilege (p.614).

In order to not repeat what happened to Brian Sinclair and ultimately reduce Indigenous health disparities, healthcare providers must critically reflect on the ways normative, White privilege can produce and reproduce health inequities, and this is a crucial step in addressing and changing the negative discourse of placing Indigenous peoples at the center of the problems and something to be 'fixed' (Durey, 2012). Essentializing Indigenous peoples as problematic and inherently unhealthy is a common theme in the colonial project and reproduced health inequities and will be explored further in the next section.

2.2.1 Essentialism and 'Othering'

In simple terms, essentialism can be described as a belief that persons, groups, or things have characteristics that make them what they are and is often used to justify attitude and beliefs toward a minority population (Grosz, 1990). Confronting essentialist healthcare provider attitudes is important in the cultural awareness discourse. There have been attempts by scholars and academics to challenge essentialist discourses and the attribution of 'natural' characteristics to social constructions such as gender, race, and sexuality. For example, there was a study done with students at a post-secondary institution and the results suggest intercultural training embedded within a university course shows an increase in the student's intercultural awareness. This awareness is enhanced by the students critically reflecting on their knowledge about cultures other than their own (Fisher, 2010).

Essentializing Indigenous peoples in simplistic terms happens not only in the interactions between healthcare providers, but also in cultural training programs as well. For example,

> a postcolonial analysis of the cultural awareness framework emphasizes some of the risks of this discourse, explored in this article through the concepts of essentialism, 'othering', and the negligence of systemic responsibility. We argue that the limited conceptualization of culture and identity within Indigenous cultural training based on a cultural awareness framework may explain its failure to contribute to the development of culturally appropriate health services (Downing, 2011, p.8)

An important theme that occurs during healthcare provider training level that needs to be challenged is 'othering'. 'Othering' is described as the process in which individuals, groups and cultures are perceived to be different from oneself and the mainstream culture, and this process maintains and reproduces unequal positions of subordination and domination. The cultural training approach maintains and reproduces power by othering on the expertise of external actors' example. For example, the cultural awareness training co-opts participatory engagement by marginalizing subaltern groups and forwarding the status quo agenda (Dutta, 2007). There are still a number of challenges in cultural awareness training with healthcare providers. These challenges include the task of measuring cultural awareness and determining whether or not it is having the effect it is supposed to. Another especially challenging aspect is implementing cultural awareness policies at the systems level. Both require vast amounts of work and insight.

2.3 Concepts and Definitions related to Cultural Awareness Training

Cultural awareness training has been a focus of study in the fields of public health, sociology, and medical anthropology as well as in various fields of medicine. Research on this theme has developed in many cultural contexts and countries around the world with only a small number of studies focusing on the needs of Indigenous communities and no studies dealing with cultural security and cultural awareness training in relation to maternal health that I am aware of.

For healthcare providers (HCPs), the goal of cultural awareness training has evolved from a concept of one simply becoming aware of other cultures, to one that calls on individuals to become self-reflective in their roles when interacting with different cultures. Addressing key health influencers such as racism and bias, providers can provide culturally appropriate care and influence Indigenous health in a positive way. Cultural awareness is a vague and imprecise

concept that has developed differently depending on geographical location. The majority of literature comes out of Australia and New Zealand with North America slowly starting to grasp the idea of becoming culturally aware, but more importantly developing self-awareness during cultural interactions (West, Mills, Rowland, and Cree,

Early trends in cultural awareness included intercultural spectrum training, but eventually Indigenous populations started to develop their own training and the concept of cultural safety was created. Overall, cultural awareness training has evolved from simply extracting and using cultural information to one in which learners/individuals are asked (or learn techniques) to use continuous self-reflection so that the healthcare provider can understand their role in addressing health disparities. Having a community driven intervention allowing for positive interactions and experiences is a novel approach to cultural awareness training and breaks away from less effective trends such as cultural workshops and classes.

There is a lack of consensus for key concepts in cultural awareness discourse, and health scholars often use different concepts and definitions interchangeably (Orlandi, 1992). Downing et al (2011) provide a useful definition and a table (figure 1), and recognize six different cultural training concepts. Cultural awareness (also known as cross-cultural or intercultural spectrum training) usually attempts to increase care providers' awareness of the patient's social, historical, and cultural factors and context. Cultural competence (similar to multicultural training and diversity training) aims to shift attitudes, behaviours, and policies. Cultural sensitivity (also called transcultural care) features the objective of providing culture-specific care. Cultural safety was developed in the context of Indigenous health and aims to address colonial structures and processes. Cultural security aims to address health disparities at the systems level rather than focussing only on the individual. Finally, the goal of cultural respect is to provide more accessible health services (Downing et al, 2011). For the purposes of this thesis the term cultural security is going to be used. The pilot nature of this studies hopes to eventually influence organizational policy at the systems level.

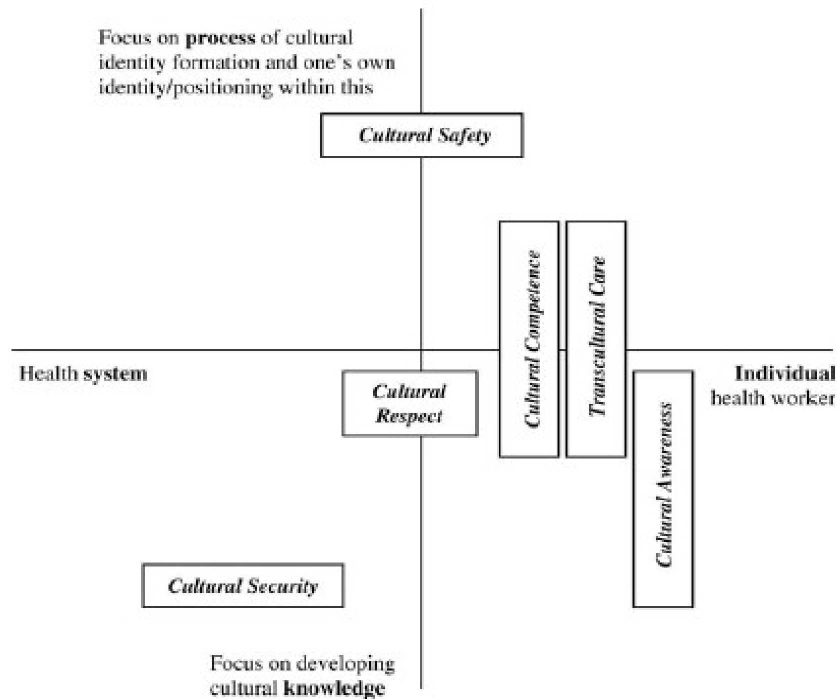

Figure 1. Comparison of theoretical models underlying Indigenous cultural training (Downing et al, 2011)

Historically, cultural awareness was about taking information from other cultures and using it to becoming aware. The knowledge-based awareness has its roots in culture shock, and concepts such as intercultural spectrum which is built from this concept.

2.3.1 The Evolution of the Cultural Awareness Concept

For decades healthcare scholars have recognized the need to acknowledge the cultural differences between health practitioners and patients. Early concepts on cultural awareness drew heavily from the discipline of anthropology (Hannigan, 1990). There was a growing need for public servants to be more culturally aware of those around them, and confronting this reality has led to the evolution of what is referred to as the "multicultural" or "cross-cultural counselling movement" and the theories that inform it (Gudykunst, 1984). Over the next couple of decades, and through critical examination, the concepts, definitions, and approaches of cultural awareness have evolved into what we have today. The evolution of cultural awareness can be traced back to the 1950's and is still undergoing fundamental changes with each new study conducted.

2.3.2 Culture Shock

In 1954, Kalervo Oberg, as seen in Dutton 2011, studied the term “culture shock” and later defined it as an “occupational disease of people who have suddenly been transported abroad" (64). Oberg observed culture shock among sojourners living in unfamiliar cultures. According to Oberg, the model of cultural shock includes four stages, the honeymoon stage, during which the sojourner finds the new culture fascinating. This is followed by reaction stage, in which they develop a strong dislike for the culture and see it as inferior to their own. Stage three includes the sojourner developing coping strategies. Finally, in stage four a breakthrough takes place and the sojourner is able to see the culture not as inferior but “just another way of living” (Dutton, 2011, p.1). Culture shock is now no longer seen as a disease, although it did become the most accepted construct to describe how an individual can feel when interacting with unfamiliar cultures. Although, Oberg’s model of culture is now seen as out dated, it still influences public servants and professionals approaching intercultural interaction as it allows it is a simple and straightforward way of engaging with an unfamiliar culture. This can lead to negative assumptions and negative interactions.

2.3.3 Intercultural Spectrum

During the 1970’s Intercultural communication scholars relied heavily on Oberg’s model of culture shock, and two key themes emerged, including acquiring cross-cultural skills (Pederson, 1977, p.94), and becoming more aware of one’s own attitudes toward ethnic minorities (Parker & McDavis, 1979). In the early 1980s, David Hoopes introduced the following categories on a spectrum of intercultural learning: ethnocentrism, awareness, understanding, acceptance, appreciation, and selective adoption (1981). Hoopes’ spectrum is subjective in that each category can be experienced differently depending on the state of the learner, and follows the same pattern of learning and experiences that Oberg set out with his model of culture shock.

Milton Bennett (1986) describes intercultural sensitivity as a continuum for professionals. Early stages of this linear continuum involve the minimization of differences between the professional and minority group, and the eventual acceptance and integration of difference into the individual’s worldview coming in the later stages. Throughout the intercultural process Bennett (1986) assumes that if an individual were to fully immerse him or herself in a particular

culture that eventually they will be able to switch from their own worldview to one that cultures worldview fairly easily. Early health communication theories also assumed that professionals can become culturally sensitive by extracting and incorporating certain aspects of minority cultures into the dominant theories and applications of health communication (Saha et al, 2008). Assumptions like these have the potential to trivialize cultures by reducing them to something simply to be extracted from and eventually mastered. This type of cultural education may initially be interpreted as a higher level of sensitivity, but it is actually consistent with the destructive mindset where one culture is seen as superior and another culture as inferior.

2.3.4 Cultural Safety

Cultural safety brought together to cultural awareness concepts such as self-reflection and addressing health influencers such as racism and power relations. By addressing these influencers, it is hoped that healthcare providers can provide culturally safe care. This is especially prevalent in the area of Indigenous health as cultural safety was developed by an Indigenous scholar for Indigenous populations.

Ultimately, cultural safety addresses and responds to power relationships. It allows HCPs to investigate setting up systems which enable the less powerful to genuinely monitor the attitudes and services of the powerful to comment with safety, and ultimately, to create useful and positive change, which can only be of benefit to nursing, and to all the people whom healthcare providers serve (Ramsden, 2002). Cultural safety addresses power dynamics at several stages. First at the educational level where healthcare providers receive their training, and secondly at the clinic level, where healthcare providers are more likely to interact with Indigenous peoples (Ramsden, 2002). Furthering the theme of addressing power and racism, advocates of the cultural safety concept, claim that a recognition of professional, power, and cultural differences between individuals must be combined with an understanding of the socioeconomic dimensions of health is the best way for healthcare professionals to provide culturally safe care (Dyck, 1995). Confronting the roles of power, privilege, and racism in health settings is a considerable task, but in order to achieve equitable health outcomes all of these issues must be addressed.

Theories on cultural safety developed out of an Indigenous nursing initiative in New Zealand. Implemented in 1992, students in nursing programs were to engage with the principles of cultural safety. The principles were asked to identify and examine their own beliefs with each

individual they encounter in their practice, be open minded and flexible, refrain from blaming the victim for their own circumstances, and take part in a workforce of culturally safe nurses and midwives (Papps and Ramsden, 1996). Cultural safety was among the first concepts that was developed by an Indigenous scholar for an Indigenous population. Building on the cultural safety model, Weaver (1999) argues, cultural competency must also acknowledge diversity, knowledge of history, empathy, self-awareness, respect, and value social justice and decolonization. Cultural safety can only be attained if the healthcare provider is self-aware of their own biases and prejudices.

The role of self-reflection is also a key within the concept of cultural safety. Cultural safety reminds us that it is necessary for those working in a healthcare setting to reflect upon the ways in which our policies, research and practices may recreate human traumas, in particular we need to ask Indigenous people if they are being placed at unnecessary risk (Smye & Browne, 2002). These risks can include not feeling safe or comfortable in the health setting and it is up to the healthcare provider to reflect on their own practices in order to provide culturally safe care.

2.3.5 Measuring Cultural Competency Training

The trend in measuring the effectiveness of cultural competency training focuses on the healthcare provider and there is scant evidence on the patient's perspective. A systematic literature review done on cultural competency findings reveals that there is good evidence that cultural training can impact measurable outcomes such as healthcare provider's knowledge, attitudes, and skills (Beach et al, 2005). Cultural competency training is now empirically viewed as effective at the level of the healthcare provider. Although, in a phone survey done in the United States the results revealed a troubling trend that ethnic minorities were still more likely to perceive biases when seeking healthcare (Johnson et al, 2004). Measuring the efficacy of cultural training at the healthcare provider level has been the focus of most research done in cultural awareness training, yet measuring the effectiveness at the patient level remains elusive.

2.3.6 Intersectionality and Health Equity

A main theme in the literature is the theoretical framework of intersectionality and how different social determinants of health influence health outcomes. Intersectionality and health inequities can be described as,

> a theoretical framework for understanding how multiple social identities such as race, gender, sexual orientation, socioeconomic status, and disability intersect at the micro level of individual experience to reflect interlocking systems of privilege and oppression (i.e., racism, sexism, heterosexism, classism) at the macro social structural level. Far from being just an exercise in semantics, intersectionality provides the discipline of public health with a critical unifying interpretive and analytical framework for reframing how public health scholars conceptualize, investigate, analyze, and address disparities and social inequality in health (Bowleg, 2012, p. 1267).

Healthcare providers not becoming aware of the intersections that influence health outcomes can result in inaccurate histories, decreased satisfaction with care, non-adherence, poor continuity of care, less preventive screening, miscommunication, difficulties with informed consent, inadequate analgesia, a lower likelihood of having a primary care provider, decreased access to care, use of harmful remedies, delayed immunizations, and fewer prescriptions (Flores, 2000)

Indigenous health can be placed in a complex network influenced by historical, economic, and political factors. Therefore, any discourse in Indigenous health must acknowledge and explicate the intersectionality of race, gender, class, and racialization and connect them to how life opportunities and dispossession through structural inequities influence health (Anderson and Kirkham, 1999). Becoming aware of Indigenous health and the intersectionality of influencers has the potential to ameliorate complex Indigenous health issues.

2.4 Current Trends in Cultural Awareness Training

Currently there is a substantial focus in structural changes that incorporate cultural awareness training. Defined as 'structural cultural competence', new literature has begun to address the structure of healthcare delivery and how it impacts minorities, and it is argued structural interventions are needed to produce true health equity (Betancourt, 2016). Addressing cultural competence at the system level can include implementing culturally appropriate practices at the policy level. This is also done in significant absence of outcome driven evaluative processes that convince organizations of the 'fiscal' sense of adopting certain practices (Westerman, 2004). Currently health services delivery focuses on the bottom line or funding of such initiatives, and

while there is a need for addressing cultural training at the systems level the majority of approaches focus on the individual level.

Capacity building is also mentioned in the literature quite often, for example, there is a need train and educate Indigenous individuals in the western bio-medical model, but also allow them to provide their own cultural insights (Ring and Brown, 2003). Although this has been talked about for decades, the Truth and Reconciliation has provided a valuable road map on how accomplish these objectives with actionable steps forward.

2.4.1 Self-Reflection

The 1990's witnessed a shift from simply educating health care professionals about minority cultures to reacquiring a level of self-reflection. Rather than just educating individuals and expecting them to become culturally aware, there is an emphasis put on the role of self-awareness. The cultural awareness literature often describes trends in cross-cultural research as happening in three main areas: awareness of one's own worldviews, knowledge of culturally different clients, and development of the necessary skills to work with ethnic minorities (Holcomb-McCoy & Myers, 1999). There is a shift in the literature from merely becoming aware of others ethnic backgrounds to reflecting on one's prejudices and biases. Healthcare professionals are aware of the fact that there are gaps in the cultural training they receive throughout their education and career, yet this self awareness is inconsistent with the findings of 151 participants where professionals perceive themselves as culturally competent (Holcomb-McCoy, 1999). Holcomb and McCoy's findings highlight one of the main challenges in cultural awareness training, that health care providers perceive themselves as being culturally aware when reflecting, yet there are numerous accounts of minorities not having positive interactions with health staff (1999). Anecdotally, if one was to speak with a visible minority about the care they received they may have either been personally affected with culturally inadequate care, or know somebody who has.

It can be argued that reflection should happen at different levels. For example, cultural competence training for nurses highlights the importance of reflexivity at individual, interpersonal and systemic or institutional levels. This requires four steps: 1) cultural awareness, involving reflexivity and examining and challenging our own beliefs; 2) cultural knowledge, involving meaningful interactions with other communities, 3) identifying barriers to health care

and avoiding essentialism; 4) building trust, respect, empathy, and a synthesis of the three previous approaches including actively challenging racism (Durey, 2010). Actively challenging racism can be fleshed out in several key themes for cultural awareness training.

2.5 Conclusions

Interactions between cultures has been happening since time immemorial. When individuals from the mainstream are interacting with Indigenous populations it is important for them to not only try and educate themselves on the cultures they are working with, but also take it a step further and critically reflect on their own roles and how it influences health outcomes. As a researcher it is important to understand that healthcare providers want to be engaged with Indigenous populations, but find it challenging to find opportunities. Providing positive opportunities is essential to ensuring healthcare provider cultural awareness is influenced in a good way. This thesis does not fit into any of these concepts or approaches of cultural awareness training

Chapter 3: Methods

3.1 Study Overview

This study built on our results obtained from previous work conducted by our ENRICH First Nations Research group with Healthcare Providers (HCPs) and staff from the Wetaskiwin Primary Care Network (PCN) and from the Maskwacis Health Centre (MHS). In the earlier study, HCPs and staff from the PCN indicated that they wanted opportunities to experience the community of Maskwacis (Oster et al, 2016). Based on those findings, the Community Advisory Committee (CAC) from Maskwacis recommended that HCPs and staff be provided with an opportunity to attend multiple activities that would give HCPs and staff positive experiences with the community of Maskwacis.

The valuable contribution of having the community's full involvement in the research process is increasingly recognized, especially when working with Indigenous communities. Researchers are asking for, and embracing, the value of local knowledge within the community and the importance of full collaboration between all partners has been described as having the potential to address negative health outcomes (Ritchie et al, 2013). There were considerable discussions with all partners, including the CAC, ENRICH group, MHS and PCN leadership, and together it was decided that this study would examine the effects of a group of an intervention. Together these activities made up the intervention, and that cultural awareness would be assessed before and after the intervention. A mixed-methods approach was taken for data collection and analysis. Quantitative information (in the form of survey data) was collected first and qualitative was collected second, in order to gain insight and context that would help interpret the quantitative data. The intervention was a series of activities and events held between July 2017 and Nov 2017.

3.2 Indigenous Methodologies

In her seminal book *Decolonizing Methodologies: Research and Indigenous Peoples*, Linda Tuhiwai Smith describes 'research' as one of the dirtiest terms in the Indigenous world (1999). Research is now directly connected to colonialism and has been historically used to disenfranchise Indigenous populations but it is also important to understand that Indigenous methodologies do not reject non-Indigenous research or western research paradigms (Porsanger, 2004). Rather, Indigenous methodologies require the researcher to continually critically reflect

on their role throughout the research process (Porsanger, 2004). It could be argued that self-reflection is even more important for Indigenous people conducting research with their own communities. Reflexivity is important as it allows the researcher to become aware of their social position. When an Indigenous researcher decides to work with their own community as an insider, they voluntarily position themselves to walk a fine line between researcher and community member. The fine line comes in the form of having to navigate competing interests such as the community wants/needs and the wants/needs of funding organizations, although most scholars would argue addressing the wants and needs of the community should take precedence over any others. Ultimately, at the core of Indigenous methodologies is respect, reciprocation, empathy and ethical treatment of participants (Singh & Major, 2017).

Cree scholar Margaret Kovach (2009) states that an Indigenous research framework "acts as a nest encompassing the range of qualities influencing the process and content of the research journey" (p.41). Within this "nest" are several practical implications for anyone conducting research with Indigenous populations, and Kovach describes some of her research as honouring Cree values, such as kinship and giving back to the community (p.140). When working with any particular Indigenous population, the researcher should approach it with an open mind and open heart. The action-oriented approach to research is also integral to Métis scholar Adam Gaudry's (2011) insurgent research. Insurgent research can be described as a response to extractive research, or research done on and not with Indigenous peoples. Insurgent research has four core elements:

> 1) research is grounded in, respects, and ultimately seeks to validate Indigenous world views,
> 2) research output is geared toward use by Indigenous peoples and in Indigenous communities,
> 3) research processes and final products are ultimately responsible to Indigenous communities, and
> 4) meaning that Indigenous communities are the final judges of the validity and effectiveness of insurgent research, research is action oriented and works as a

> motivating factor for practical and direct action among Indigenous peoples and in Indigenous communities (p.117).

It is also evident that the majority of research with Indigenous peoples is mostly done using qualitative methods. The argument is that qualitative approaches facilitate a moral imperative and "ways of knowing" that is more geared toward Indigenous populations (Ermine et al, 2005).

3.1.2 Community Based Participatory Research

Community based participatory research (CBPR) is a growing field of research with Indigenous communities. Community based research is consistent with critical and constructivist theory, but with one main difference, the participation of non-academic researchers in the creation of knowledge (Israel et al, 1998). CBPR is used to identify and address the needs of the community by engaging with community members and stakeholders in ongoing discussions around what are the most pressing issues (Minkler & Wallerstein, 2011). CBPR emphasizes mutual respect, reciprocity, collaboration, and shared decision-making between community members and researchers (Minkler & Wallerstein, 2011), and some argue that CBPR is not a method, but rather an overarching orientation to research (Cornwall & Jewkes, 1995). Linda Tuhiwai Smith (1999) explains Indigenous communities already know the solutions to their challenges and it is up to the researcher to engage the community in such a way that the community is able articulate their own solutions. Knowing that the community already knows the solutions allows the researcher to approach research in an inclusive way.

According to Israel et al (2008), there are nine principles to community-based health research. They are:

1. recognize the community as a unit of identity;
2. build on strengths within the community;
3. facilitate equitable partnerships for all stakeholders that attends to power sharing principles;
4. promote capacity building and reciprocal learning;
5. achieve a balance between researcher and community stakeholders;
6. emphasize local issues but through an ecological lens that addresses multiple social determinants of health;

7. imagine systemic influences as an iterative and dynamic process;
8. involve all stakeholders and partners in the dissemination process; and focus on long term process and commitment to sustainability.

Furthering the discussion on principles of CBPR in Indigenous communities, LaVeaux and Christopher (2009) presented their own nine principles. These are:

1. acknowledge historical experience with research and with health issues and work to overcome the negative image of research;
2. recognize tribal sovereignty;
3. differentiate between tribal and community memberships;
4. understand tribal diversity and its implications;
5. plan for extended timelines;
6. recognize and engage key gatekeepers;
7. prepare for leadership turnover;
8. interpret data within the cultural context;
9. use and respect Indigenous or local ways of knowing.

While these lists are similar, Laveaux's list is specific to the needs and wants of Indigenous communities. As a community member, I was aware of these principles intuitively, and reading them reinforced my own knowledge.

Some of the challenges a researcher conducting CBPR include community research capacity and political turnover. The research must reflect critically on whether "community members are involved minimally to satisfy a grant mandate, or are they involved throughout the extended and comprehensive process of designing the research questions, seeking funding, designing methodology, conducting the data collection, participating in the analysis, and dissemination" (Wallerstein & Duran, 2006, p. 314). Full and ongoing community involvement in the research process is essential in making sure the community's needs and wants are being met. This thesis met these criteria by having ongoing and meaningful discussion with our Community Advisory Committee throughout the entire research process.

Researchers must critically reflect on their roles in order to address the unethical history of research with Indigenous communities. The ENRICH: First Nations Project has considered these 18 principles of Indigenous community-based health research in the studies they have worked on with Indigenous communities.

A key feature of our work with Maskwacis is the role of our community advisory committee (CAC). The CAC is dynamic and has included community members, community leaders, healthcare providers, Elders, and university-based researchers. Group participation and membership is fluid for the community members, Elders, and staff from the community and surrounding off-reserve health/social services departments. Specifically, for my thesis project the Elders involved were Rick Lightning, Bruce Cutknife, and Ida Bull. Their perspectives and knowledges are the reason I was able to do this work. We held monthly meetings with the CAC to ensure that the project was moving along appropriately and respectfully while adhering to the principles of CBPR. Furthermore, working with Dr. Brenda Parlee and Dr. Richard Oster, both experts of CBPR, provided valuable insight into the literature and processes of CBPR.

In partnership with our CAC we developed our own 6 core principles (seen in figure 2). They include building and maintaining relationships, respect, using a strength-based approach, cultural teachings, the need to act now, and mutual benefits. Throughout the ENRICH First Nations study, relationships building and maintenance has been integral to the success of the project. As community member, my ability to bring some of my relationships into the study was crucial to its success, as was the relationship building and maintenance Dr. Richard Oster established before I was hired as a research assistant. In order to get respect, you need to give respect. From the very first meeting respect has been shown by the ENRICH group and in turn it has earned the respect of the community. For every study done with Maskwacis, using a strength-based approach has been foundational. Although we do acknowledge the negatives, our approach has been to research the positives and this has led to much more meaningful research benefits for the community. Cultural teachings have guided our research in fascinating ways. Whether it is providing protocol at the Sundance before the intervention, using the Cree concepts, or participating in ceremony such as a sweat lodge to make sure we start a new study in a good way, our Elders knew the results would take care of themselves if we followed their guidance. The need to act now was also integral to showing the community ENRICH was serious about their research with Maskwacis. In another study done with Dr. Richard Oster, he established an

Elder's mentoring program early into the project. In this program Elders would visit the Wetaskiwin Primary Care Network and provide something as simple a listening ear, or cultural support, or social support for women who came in from Maskwacis. Mutual benefits have also been integral to the success of our work. The CAC has provided such valuable guidance and support to the research, and in return each study has given something back to Maskwacis, including developing research capacity through myself.

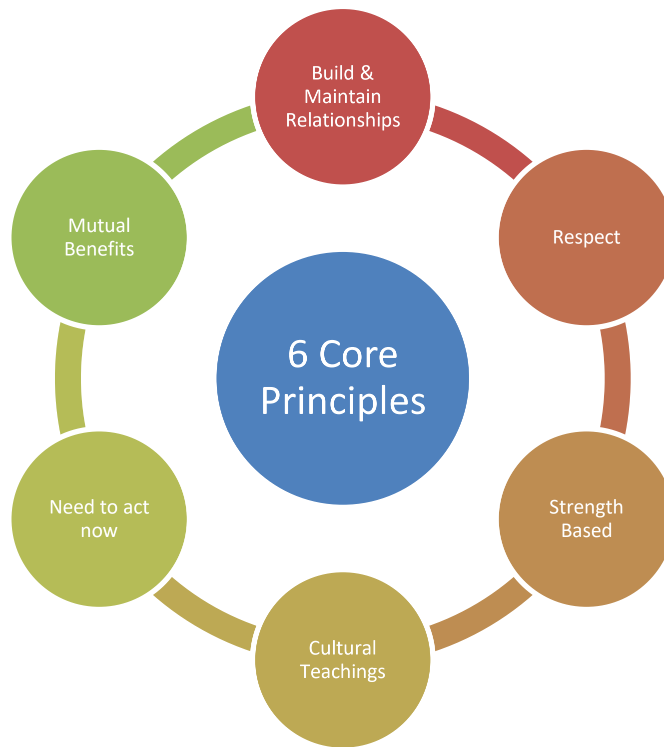

Figure 2. Maskwacis Community Advisory Committee core principles

3.1.2 Maskwacis Specific Cultural Scale Development

Before the study began it was recognized that we would need to develop a survey instrument specific to Maskwacis. Community based monitoring programs are used in environmental sociology, where community members collaborate with researchers to track and monitor changes in the environment such as Caribou herd (Berkes et a, 2007). One of the main features of community-based monitoring is the researcher's ability to develop research instruments that are specific to that community. Although there is little literature on the subject, this approach has

the potential to address the needs, wants, and perspectives, of the community, and adheres to the principles of CBPR. There also is a need for researchers engage the community and develop survey statements that are relevant to that specific community, according to Banner et al (1995)

> Health promotion programs targeted at minority populations have often failed in the past because of cultural inappropriateness. Specifically, programs may not be directed at important issues from the standpoint of the target population, information may be seen as irrelevant because of its content and/or mode of communication and the program may not be integrated with the social systems that establish and maintain the behavioral norms for individuals in the community (pp. 447-448).

It was recognized early in the research process for this study that that we would need to develop a questionnaire to evaluate cultural awareness in a way that was specific to the community of Maskwacis. To do this, regular meetings with the Community Advisory Committee (CAC) were held to better understand the concept of cultural security in the community from many perspectives, ensuring full collaboration and adherence to the principles of Community Based Participatory Research (CBPR) and addressing the unique challenges of the community and are relevant to Maskwacis. One specific CBPR activity that yielded unique results was the development of the Maskwacis Specific Cultural Scale (MSCS).

Under the guidance of the CAC, I conducted scoping interviews with four key informants including a community Elder, MHS community healthcare provider, and two community members. This process ensured that the community provided input into the survey. Using very basic descriptive qualitative techniques, I analyzed the interviews to find common themes that involved cultural security. Questions asked were as follows,

> 1) What does "cultural security" mean to you, and what are some useful Cree terms that could be used to describe the problem and issues of greatest concern?
>
> 2) What does "good maternal health" mean to you?
>
> 3) How/why does cultural security matter to maternal health?

4) In your previous experience, what do you feel, hear from others or observe that tells you things are going well or not going well with maternal health? What do you feel, hear or observe that tells you people are feeling culturally secure in their health care experience?

5) How can maternal health programs be improved in Maskwacis?

6) What are some of the signs/signals that would tell you such programs are successful or not successful?

I then brought these themes to our CAC and together we developed statements out of them. Finally, I brought the survey back to the ENRICH group to get feedback. Ultimately, our academic team and CAC developed a Maskwacis specific survey that contained 12 statements asking people to indicate how much they agreed with the statement. Wording for this survey was revised several times over the course of multiple CAC meetings. The theme of a Cree worldview was brought up repeatedly, and the CAC felt it necessary to include the idea that members of Maskwacis interact with the world through 'feeling'. 'Feeling' in this context is an intuitive process that involves operating from the heart rather than the brain. The statements that came out of these scoping interviews were self-perceived safety, communication, community knowledge, and self-awareness.

3.2 Experiential Cultural Security Intervention

The development and implementation of the intervention was done in full partnership with the CAC. All activities were discussed thoroughly and ultimately the CAC had the final say on what experiences were available to HCPs and staff. The intervention was a series of activities that included lunch and learns, attending a pow-wow, participation in sweat lodge, and hosting a feast ceremony.

Although not explicitly stated in these academic terms the CAC felt HCPs and staff need to experience Maskwacis, rather than just hear, read, or talk about it. Informally, the intervention encompassed experiential learning theory. Experiential learning is the idea that experience is a more complete learning environment than passive ways of learning. Defined as full personal

involvement or the whole person in both their feelings or emotions and cognitive or intellectual aspects being in the learning event (Kolb 2012).

Figure 3. Timeline of Intervention

3.2.1 Lunch and Learn Sessions - History of Maskwacis

Two topics were presented as lunch and learn sessions. These sessions were approximately one hour long and were offered over the lunch hour at the Wetaskiwin Primary Care Network (PCN) twice in the same week and at Maskwacis Health Services (MHS) twice in the following week for a total of 4. Both sessions were offered twice to allow maximal participation by clinic staff. The first Lunch and Learn session was on the topic of the history of Maskwacis and was presented on Aug 8 and 10, 2017. This topic was chosen in consultation with the CAC who felt it was necessary as a starting place in order for the participants to better comprehend the complexity of Maskwacis culture today. Mr. Bruce Cutknife, an Elder from Maskwacis, gave this talk along with a PowerPoint presentation. Mr. Cutknife is a recipient of the annual "Pioneer of the Year" award, given by the Reynolds Museum to an individual who exemplifies what it means to be a community history keeper. The slide show included historical maps, pictures, portraits of chiefs from the different bands in Maskwacis, and other relevant material. There was a total of eleven participants who attended the first Lunch and Learn. Mr. Cutknife's talk started with a history of the Cree people in general and weaved its way through the settling of

Maskwacis (Bear Hills) via treaty negotiations, the Indian Act, residential schools, and what Maskwacis was like during the 1970s and 80s. The presentation was well received and provided a valuable perspective. Lunch was served at this presentation and it took place in the boardroom of the PCN.

3.2.2 Lunch and Learn Session - Cree Pregnancy

On Aug 15th and 17th, Inez Lightning presented a Lunch and Learn session on Cree pregnancy. The second lunch and learn went into detail about what a healthy Cree pregnancy means in the community of Maskwacis. Community member, Inez Lightning, was asked because of her vast amount of experience, with 6 children of her own and over 30 grandchildren, with motherhood, and with maternal services off and on reserve. Inez is a well-respected member of the community. The presentation took place at Maskwacis Health Services and for some of those coming from Wetaskiwin, this was the first time they had been to Maskwacis. Inez's presentation was informal and included several family pictures and mementos. She primarily talked about her own journey as a mother, grandmother, and great grandmother. Eleven HCPs and staff from the PCN and MHS participated. On Aug 15th this session was presented in quite a formal way with Mrs. Lightning standing in front of everyone. On Aug 17th, participants and Mrs. Lightning were all seated in a circle for the duration of the session. HCPs and staff were served lunch that included bannock, stew, and a fruit tray at each of the sessions.

3.2.3 Samson Cree Nation Annual Pow-wow

The third activity was a guided day at the Samson Cree Nation Annual Pow-wow. It should be noted that Samson Pow-wow is hosted at Maskwacis Bear Park, which is located in Ermineskin Cree Nation. The day began with Rick and Inez Lightning hosting a lunch for our group of researchers, HCPs and staff, and family members at their house located in Ermineskin (one of the reserves that makes up Maskwacis). We met at Rick's house for a few hours before the first grand entry to allow the participants to ask questions about what they could expect at the pow-wow or any other questions that might come up. After lunch we headed over the powwow so that participants could settle into the arbour while the drumming was starting and others were also getting settled. They then experienced the grand entry. The grand entry can be described as a

vibrant show of cultural pride and connection. The Samson celebration pow-wow is one of the largest in western Canada with approximately 1600 dancers and upwards of 15,000 visitors over the three-day event. During the grand entry nearly all 1600 dancers head to the arbour to begin the day of competition. Dance styles include, for the women: jingle dress, fancy shawl, traditional dance; and for the men: fancy, chicken, traditional, grass, and buckskin. Each dance category has its own unique regalia that includes feathers, moccasins, elaborate beadwork and other unique attire. Our CAC felt that the grand entry was the best time for the HCP's and staff to experience the pow-wow because it exposed them to everything a pow-wow has to offer. After the grand entry there is an intertribal dance, and some of our group including the participants, took part and were in the middle of the arbour dancing their dance. The day also included a headdress ceremony for the newly elected chief Vern Saddleback. Three HCP's were able to participate.

3.2.4 Sweat lodge

One Sept 25th, 2017 Rick Lightning hosted healthcare providers and staff at his house for a sweat lodge ceremony. Out of respect for the sweat lodge and knowledge keepers I will not go into details about the ceremony, but will describe it in broad terms. The sweat lodge can be described as a healing ceremony in which participants bring their fears, dreams, and any other kinds of issues deemed important. One can also sweat on behalf of others such as loved ones, and communities. Structurally the lodge is dome shaped and can range from 8 to 10 feet in diameter. Experiencing a sweat lodge is often described as intense yet intimate. Four HCPs and staff were able to participate and several others involved in research and health were also present.

3.2.5 Feast Ceremony

On Oct 6th we hosted a feast ceremony for the participants. The feast ceremony can be described as a gathering and can be used for different occasions. In the community of Maskwacis feast ceremonies usually take place after a funeral or during a memorial but they can also be used to give thanks. The ENRICH group, which included Dr. Rhonda Bell and Dr. Richard Oster, as well as their families, and several other research assistants, to thank the HCPs and staff, not only for participating, but also for the support and services they provide on a continual basis. I offered tobacco to a local knowledge keeper and he brought his pipe and his wife brought a women's

pipe to the feast. Once the food was laid out for the feast but before any food was distributed or eaten the local knowledge keeper conducted a pipe ceremony. This ceremony was done in Cree to bring the spirits of our ancestors, also known as the grandmothers and grandfathers, to come and participate with us. The setup for the feast includes everyone sitting in a semi circle with the food in the middle. During the feast usually, young men are tasked with the handling and distribution of the food, and due to the lack of young men at the ceremony it was decided that the participants would serve themselves. Once the pipe ceremony was complete people were invited to eat. The facilitating Elder then instructed me to offer protocol to several of the attendees to share their experiences with the group. Approximately 12 HCPs and staff participated with several other individuals.

3.2.6 Wrap-Up Lunch

On Nov 27th we hosted a wrap up lunch at the Wetaskiwin PCN to allow participants to interact with the Elders from our CAC. The lunch was attended by the three Elders from the CAC and participants were given an opportunity to ask any lingering questions they may have had. The first question to come up was about Cree kinship, and how the role of adoption works for the Cree people. One of the Elders answered, that Cree kinship goes beyond sociological understandings of family and when a family loses a loved one, they may adopt somebody from another tribe to stand in from time to time. One of Elders then turned the conversation to racism in the healthcare setting, and there was noticeable shift in the mood. This discussion was important, as uncomfortable as the topic of racism can be, it is an important one that was not touched on throughout the intervention. One of the Elders was adamant that this conversation needed to happen and I am grateful that it did, as one elder put it, the healthiest relationships are the ones where you can discuss uncomfortable topics and still respect each other. The participants were served lunch and roughly 15 were in attendance.

3.3 Study Methods and Questionnaires

3.3.1 Mixed Methods

We used a mixed methods approach to address the study objectives. Data was collected using quantitative (survey) and qualitative (interview) methods. Mixed-methods approaches are growing as a method used in health research and yields rich data that would be unattainable if

each research method was utilized separately (Creswell and Clark, 2011; Morse 2003). By definition, mixed methods are a procedure for collecting, analyzing, and integrating both quantitative and qualitative data at some stage of the research process within a single study for the purpose of gaining a better understanding of the research question (Ivankova, Creswell, Stick, 2006). We wanted to measure differences between pre and post survey statistics as well as give HCPs and staff the opportunity to provide their perspectives via one on one semi structured interviews.

Specifically, I used explanatory sequential mixed methods during the process of collecting quantitative data (e.g. surveys) first, followed by qualitative data and using the qualitative data to explain the results from the quantitative portion of the study (Creswell & Creswell, 2011). Quantitative data were collected using 2 different surveys (described below). Together the surveys had 32 statements or questions to respond to (see appendices 1 & 2). Information collected by survey was respondents' demographic characteristics and their perceptions, attitudes, experiences with the intervention and providing care (Singleton Jr & Straits, 2010). Mixed methods can be described as a rigorous collection of data were collected using interviews and the approach to analyses was and can provide a better understanding of a research problem qualitative description since the information gathered was used to describe or summarize the basics of a phenomenon than qualitative methods on its own (Creswell & Clark, 2011; Creswell et al, 2006).

3.4.2 Quantitative Methods

Cultural awareness was assessed before and after the intervention using two different surveys, specifically the Cultural Intelligence Scale (CQS) and the Maskwacis Specific Cultural Scale (MSCS). At both time points, participants were given the option of completing the survey online using REDCap (maintained by the University of Alberta) or filling out a hard copy of the survey and returning it to the researchers in a sealed envelope. Research electronic data capture (REDCap) is a software and online methodology that is designed for rapid data collection (Harris et al, 2008). Specifically, REDCap is a secure web platform for building and managing online databases and surveys. I transcribed responses on the hard copy surveys into REDCap. For each of the 2 surveys, responses were recorded on a Likert scale (1=strongly disagree, 7=strongly agree). Responses were coded from 1 to 7 (with 1 indicating strongly disagree and 7 indicating

strongly agree). Survey data from the CQS and the MSCS was analyzed using Stata version 15.1 (StataCorp, Texas). The analysis was descriptive and bivariate, and examined relationships between separate groups, MHS and PCN at the same timepoint, as well as relationships between all of the participants across time.

3.4.3 Data Collection - Cultural Intelligence Scale and Maskwacis Specific Cultural Scale

The CQS is a validated survey instrument that has been used to characterize changes in participants' knowledge attitudes, beliefs and behaviours related to cultural awareness, and previous research defines cultural intelligence as "the capability of an individual to function effectively in situations characterized by cultural diversity" (Van Dyne & Ang, 2008, p. 2) Drawing form Sternberg and Detterman's (1986) framework of multi foci of intelligence, Van Dyne and Ang (2008) describe cultural intelligence (CQ) as a four-factor intelligence scale including, meta-cognitive, cognitive, motivational and behavioural attributes. They are described below.

- CQ Drive (Motivational CQ): the level of a person's interest, persistence, and confidence to function in culturally diverse settings.
- CQ Knowledge (Cognitive CQ): the level of a person's understanding about how cultures are similar and how they are different.
- CQ Strategy (Meta-cognitive CQ): the degree to which a person plans for, remains aware during, and checks after multicultural interactions.
- CQ Action (Behavioral CQ): the extent of a person's flexibility and appropriate use of a broad repertoire of behaviors and skills during multicultural encounters. (p.6)

It is with these concepts that Van Dyne and Ang developed a four-factor cultural intelligence scale (CQS). Our study measured self-reported CQ with the 20-item instrument that included: 4 statements in the Metacognitive Factor, 6 statements in the Cognitive Factor, 5 for the Motivational Factor, and 5 for the Behavioural Factor. For example, the survey states "I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me," as part of the Metacognitive Factor; "I know the rules (e.g., vocabulary, grammar) of other languages," for the Cognitive Factor; " I am confident that I can socialize with locals in a culture that is

unfamiliar to me," for the Motivational Factor; and "I vary the rate of my speaking when a cross-cultural situation requires it.," for Behavioural CQ (See Appendix 1 for full questionnaire). Each CQS Factor us self-reported. The responses are on a 7-point Likert scale ranging from strongly agree to strongly agree. Most studies using the CQS have been conducted in an international context.

The CQS has been validated with several studies, starting with its development from a 40-item scale tested on business school undergrads (n=576), and eventually evolving to a 20-item scale in which the items deleted where those that exhibited low residuals, extreme means, low factor ratings, and low item in total ratings (Ang & Van Dyne, 2008). This study was followed by further validation work with non-overlapping sample of 447 undergraduate students and it showed that the CQS is generalizable across samples, and the findings showed moderate correlations between factors and strong relationships between the items and their scales (Ang & Van Dyne, 2008).

The purpose of selecting the CQS for the current study was to make results generalizable to existing literature. This is important because when examining the results, I will be able to compare the results of my study to other studies rather than relying on the results of the community-based survey described earlier. The CQS was used with permission from the Cultural Intelligence Center.

3.4.4 Qualitative Data Collection

One-on-one qualitative semi-structured interviews were conducted after the intervention activities were complete with participants who self-identified as willing to be interviewed. Interviews were held with those who delivered the cultural security intervention (Elders) and those involved in the experience (prenatal HCPs and staff). According to Bernard (1998), semi-structured interviews should be used when you only have one chance to interview someone as it allows the participant to talk about what is important to them. Working with health professionals, one interview was all they would have time for. The use of open-ended questions allowed for interviewees to follow the topic, and still provide an opportunity for new ways of understanding the topic (Cohen & Crabtree 2006). The semi-structured interviews allowed participants to provide an in-depth account of their experience and their perceived effectiveness of the intervention. The interviews helped provide context and insight that served to complement the

quantitative data and vice versa. Perhaps, and more importantly, these interviews acted as learning opportunities for the participants, and the participants were given an opportunity to reflect on the intervention and see what they learned throughout the process. The qualitative data is valuable in brainstorming or imagining how the cultural knowledge and insights they gained through the experience can be applied in their day-to-day work life and in future interactions with Indigenous families from Maskwacis.

3.5 Quantitative Analysis

The mean, standard deviation, and mean of standard deviation of each statement was calculated for surveys from both pre and post intervention time points. This study was interested in measuring how responses changed over time for all the participants, as well a examining differences in responses based on HCP and staff employment location. For the CQS, responses to each survey statement were grouped under the categories provided by Van Dyne and Ang (2008). Cultural security based on this survey was considered under each of the factors as a group and as individual statements within each factor. The average score for each question was calculated. For some of the analyses, the proportion of participants who responses were in the agree and strongly agree categories were calculated and shifts in the number and proportions of participants answering in these 2 response categories before and after the intervention were analyzed . The only two categories that were combined were the agree and strongly agree categories.

Independent sample t-tests were used to determine whether the participant's responses to the statements on this questionnaire changed significantly after the intervention. The test was used to compare sample means from two independent groups (McCrum-Gardner, 2008). The independent samples t-test was done twice, prior to the intervention survey, and post intervention survey to test differences in means between groups. HCPs and staff were grouped according to their place of employment, MHS or PCN. The rationale was that we wanted to measure differences in HCPs and staff who already had experience working in Maskwacis, MHS employees, and those who may not have as much experience, i.e. PCN employees.

A paired samples t-test was also done. Paired samples t-tests were to measure differences in participant responses to survey statements as a group across time. This type of analysis is used to compare sample means when there is a one to one correspondence (McCrum-Gardner, 2008).

One on one correspondence is when the same group is measured across time at two or more time points.

Comparison of proportions of participants responses using Fishers Exact Test. The Fishers Exact Test is used to test two nominal variables and when you want to measure whether the proportions of responses vary between groups of respondents. (MacDonald, 2009). The participants' reponses were grouped into agree and not agree categories and differences were measures. Due to the small sample size, statistical significance was set at 0.10; the exact p-value is shown to ensure that the analysis did not miss a possible effect.

3.6 Qualitative Analysis

3.6.1 Interview Guide Development

The interview guide was developed with input from the ENRICH research group and CAC with the goals of the research project in mind. Semi-structured interview guides are meant to be dynamic and flexible (Doody & Noonan 2012). The interview guide was first developed by myself and then after several rounds of critical evaluation by experts, Dr. Rhonda Bell and Dr. Richard Oster. It was then presented to the CAC so they could provide community specific insight. The interview guide was a dynamic document that was open to change if needed, although it was not changed.

3.6.2 Qualitative Description

All interviews were audio recorded**,** transcribed verbatim and coded/managed using ATLAS.Ti (Version 8.2.4, Agile.Bits Inc), and analyzed using qualitative thematic analysis to inductively derive categories.

Qualitative methods include qualitative description and it is used to describe or summarize the basics of a phenomenon (Mayan, 2009). Furthermore, qualitative description research studies are those that seek to discover and understand a phenomenon, a process, or the perspectives and worldviews of the people involved (Bradshaw et al, 2017, p. 1), and the philosophical underpinnings of qualitative description approach are as follows,

- An inductive process (describes a picture of the phenomenon that is being studied, and can add to knowledge and develop a conceptual and/or theoretical framework).

- Is subjective (each person has their own perspective and each perspective counts). Recognizes the subjectivity of the experience of not only the participant but also the researcher
- Designed to develop an understanding and describe phenomenon (not to provide evidence for existing theoretical construction).
- Researcher is active in the research process (researcher becomes part of the phenomenon being studied as they talk directly to participants and/or observe their behaviors).
- An emic stance (an insider view which takes the perspectives and words of research participants as its starting point) but is influenced by the researcher not only because of subjectivity but also when a degree of interpretation occurs.
- Conducted in the natural setting (data collected in the natural setting of the participants who experience the phenomenon) (Bradshaw et al, 2017, p. 2)

Specifically, in healthcare settings, qualitative description is used widely for nurse related phenomena (Polit & Beck 2009). Qualitative descriptive methods is also the method of choice when wanting information to refine interventions (Kim & Sefcik & Bradway, 2017). The current study was interested in gaining insight into the perspectives of HCPs and staff.

The data analysis technique used for the interviews was thematic analysis. Thematic analysis can be described as a research method that systematically organizes, identifies, and provides valuable insights into a qualitative data set over time (Braun and Clarke 2012). The analysis was done in the six different phases suggested by Braun and Clark, the first phase is familiarizing yourself with the data, phase two is generating initial codes, three includes searching for themes, phase four is reviewing those themes, phase four is defining and naming the themes, and phase six is producing the report (Nowell et al 2017). These guidelines provide a rigorous step in analyzing qualitative data. I was responsible for coding transcripts, and bringing emerging categories to all involved researchers for review, discussion, and verification. After these phases I brought emergent categories to the CAC for further discussion, and more in-depth interpretation. Data collected through providers' interviews and observations were key in enhancing the HCPs and staff description, and helping us to understand the experiences of HCPs and staff throughout the interview.

After the qualitative analysis was complete I presented the findings to the participants and CAC to give them last word on the results as well as provide any feedback they may have.

3.7 Conclusion

The study objective was to implement a cultural security intervention, and measure differences pre and post intervention via survey, and give the participants an opportunity to provide their own perspectives and insights via semi structured interviews. By using a mixed methods approach, specifically a sequential explanatory process, it gave much richer and thorough results than if either was use on its own. This provided greater understanding and insight into the research question and objectives. This thesis and research adhered to the Maskwacis specific principles of community-based research and used Indigenous methodologies. Quantitative data collection was done with at two time points and two different survey instruments, CQS and MSCS respectively, and analysis included average scores, independent and dependant t-tests, and fishers exact test. Qualitative data collection was done after the intervention with semi structured interviews with HCPs and staff and activity facilitators, and analysis included qualitative description and thematic analysis.

Chapter 4: Quantitative Results

4.1 Quantitative Summary

In this chapter, I will provide an overview of the results of the Cultural Intelligence Scale (CQS) as well as the Maskwacis Specific Cultural Scale (MSCS). These two scales were used to address different research objectives. The first reason and most important is that our CAC knew any survey instruments that were already in use would not capture the unique perspectives of Maskwacis. Secondly, the ENRICH research group knew that for this study to generalizable then we must use a validated instrument that has been used in other studies and contexts.

4.2 Characteristics of survey participants

Participants were recruited from the Wetaskiwin Primary Care Network (PCN) and Maskwacis Health Services (MHS) on a voluntary basis. To be eligible for this study, the participant needed to be employed at either MHS or the Wetaskiwin PCN. Convenience sampling was utilized since all staff members from the PCN and MHS were invited to participate.

A total of 20 participants from the Wetaskiwin Primary Care Network (PNC) and Maskwacis Health Services (MHS) participated in the pre-intervention surveys. Eleven were from the Wetaskiwin PCN and 9 from MHS. The participants were given the option of either filling out the survey online or filling out a hard copy of the questionnaire before the first lunch and learn activity.

The post intervention survey had a total of 17 participants, 9 from Maskwacis Health Services and 8 from the Wetaskiwin Primary Care Network. The participants were given the opportunity to fill out a survey at the final wrap up lunch or were given a link to the online questionnaire that they could complete after the final wrap up lunch.

4.3. Cultural Intelligence Scale Results

4.3.1 Effects of intervention on responses to the CQS for all participants.

A major objective of this thesis was to assess whether a community-driven cultural security intervention would influence the knowledge, attitudes and perceptions of prenatal HCPs and staff working with Maskwacis clients. Using the standardized Cultural Intelligence Scale (CQS) (Ng

et al, 2012) and the Maskwacis Specific Cultural Scale (MSCS) developed in this study, we were able to explore this objective during the course of the thesis research.

Average response scores to the CQS are shown in Table 2. The Metacognitive Factor, that individual's mental ability to understand cultural knowledge, scores on a single statement were statistically different between the two time points (p=0.06). This statement was, "I am conscious of the cultural knowledge I use when interacting with people from different cultural backgrounds". In the Cognitive Factor, response scores to 3 statements were significantly increased after the intervention. These were: "I know the rules of other languages" (p=0.001), "I know the marriage systems of other cultures" (p=0.02), and "I know the rules for expressing non-verbal behaviours" (p=0.004). In the Motivational Factor there was a decrease in the overall group response scores to the statement "I am sure I can deal with the stresses of adjusting to a culture that is new to me" (p=0.07). There were no other statements in the Motivational Factor that had responses that changed significantly over time. In terms of the Behaviour Factor, there were no statistically significant differences in the responses to any of the statements over time.

4.3.1 Pre and Post Intervention mean differences between MHS and PCN HCPs and Staff. The following are the results for the pre-intervention survey in which I examined the statement of whether there were differences between respondents (or participants) from MHS and the PCN prior to the intervention (see Table 3A). In the Metacognitive Factor each statement showed that there was a statistically significant difference between the groups prior to the intervention (p<0.10), and for each question the mean scores for the MHS participants were all significantly higher than PCN participants. For the Cognitive Factor, there was a statistically significant difference in response scores between groups before the intervention for the question that asked to respond about knowing religious beliefs (p=0.002). Responses to the statement that asked about knowledge of marriage systems and the statement that asked about knowledge about legal and economic systems reached statistical significance (p=0.09 and p=0.05 respectively) between groups. There were no significant differences in responses between MHS participants and the PCN participants for any statement in the Motivational Factor. The Behavioural Factor showed no statistical difference between groups.

For the post-intervention survey the Motivational, Cognitive, and Behavioural Factors there were no statistically significant differences between groups for any of the statements (see table

3B). In the responses to statements in the Metacognitive Factor only one statement remained statistically different between MHS and the PCN participants. Specifically, the participants from the PCN still had significantly significant lower response to the statement "I am conscious of the cultural knowledge I apply to cross cultural interactions" (p =.008) than MHS participants.

4.3.3 Summary of responses to survey questions about HCP self-perceptions.

The following are the summary of analyses examining the proportion of participants whose responses on the Cultural Intelligence Scale were in the "agree" or "strongly agree" categories before and after the cultural intervention. Responses in the agree and strongly agree categories for the pre and post intervention CQS survey were combined (see table 4A). The Metacognitive Factor had the largest overall increase (+21%) of all of the factors. The responses to the statement "I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds" had a large increase in the proportion of respondents who shifted (+33%) to the agree/strongly agree category after the intervention period. The Cognitive Factor had a modest increase (+13.7%) and the smallest increase was in the Motivational Factor (3%).

When examining the CQS at the specific response level for pre and post intervention surveys the trend seen an increased shift in the responses toward somewhat agree, agree, and strongly agree (see tables 4B and 4C). For example, considering the statements in the Metacognitive Factor the proportion of respondents increased in the agree category (+35.6%) when responding to the statement "I am conscious of the cultural knowledge I use when interacting with people from different backgrounds" and the majority of respondents shifted from the somewhat disagree, neutral, and somewhat agree categories. There were also increases in the proportion of positive responses to the Metacognitive Factor. This was seen in both agree and strongly agree categories, although there were greater increases in the agree category. When considering the statements in the Cognitive Factor there was substantial gains in the proportion of respondents answering in the agree category, but only a small increase in the strongly agree category. The Motivational Factor had the majority of increases in the strongly agree category. While there were substantial increases in the proportion responding in the agree category for the Behavioural Factor there were actually decreases proportion of people who responded in the strongly agree category for statements in this Factor.

4.3.4 Proportion of participants who responded in either the "do not fully agree" and "strongly agree" categories CQS

The following are the results for the fisher's exact test done by combining the proportion of participants whose responses on the Cultural Intelligence Scale who responded in a particular way, "do not fully agree" categories and "agree/strongly agree" categories, while being separated by workplace for the pre-intervention. There were no differences in the response patterns between workplace groups on the CQS, either prior to the intervention (Table 4D) or after the intervention (Table 4E). Similar analyses were complete to examine whether proportions of participant responses change over time between "do not fully agree" and "agree/strongly agree" categories with no statements in the CQS reaching statistical significance.

4.4 Maskwacis Specific Cultural Scale Results

4.4.1 Effects of intervention on the Responses to the MSCS for All Participants.

The following are the results from analyses that examined differences between average response scores for all the participants over time for the MSCS (see Table 5). Four of the statements had statistically significant improvements in responses across time. These were "I feel that I am aware about the culture of Maskwacis" ($p = 0.01$), "I feel that self reflection is important when interacting with individuals from Maskwacis" ($p = 0.03$), "I feel that I have an appropriate amount of knowledge about the resources available to support women and their partners in the different communities of Maskwacis" ($p = 0.003$), and "I feel that I am aware of the historical processes that influence health and culture within Maskwacis today" ($p = 0.028$).

Scores for the responses to the statements "I feel safe and welcome when experiencing the community of Maskwacis" ($p = 0.053$), "I feel that I can communicate well with individuals from Maskwacis" ($p = 0.07$), and "I feel that relationship building and maintenance plays a key role in enhancing cultural safety" ($p= 0.09$) all increased the difference between pre and post intervention were statistically significant. Each statement had positive mean increases across time.

4.4.2 Pre and Post Intervention differences between MHS and PCN staff.

A comparison of the response scores pre-intervention shows statistically significant differences between MHS and the PCN participants on several statements of the survey statements (Table

6A). These included: “I that I am aware about the culture of Maskwacis” (p = 0.01); “ I feel safe and welcome in the community of Maskwacis” (p = 0.02), “I feel that Maskwacis culture is dynamic and may vary from community to community and family to family” (p = 0.06), “I feel that I can communicate well with individuals from Maskwacis” (p = 0.07) “I feel that I have an appropriate amount of knowledge about the resources available to support women and their partners in the different communities of Maskwacis” (p = 0.01), “I am aware of my body language when interacting with Individuals from Maskwacis” (p = 0.03), and “I feel that self-reflection is important in interacting with individuals from Maskwacis (p = 0.04). The participants from MHS scored higher on each of the statements from the MSCS than from the PCN.

Based on the response score in the post-intervention MSCS survey (Table 6B) there were fewer statements that had statistically significant differences between MHS and the PCN. There were seven statements that had average responses that were still statistically different between groups. These were “I feel that I am aware about the culture of Maskwacis” (p = 0.005),” I feel that I can communicate well with individuals from Maskwacis” (p = 0.06), “I feel that I have an appropriate amount knowledge about the resources available to support women and their partners in different communities in Maskwacis” (p = 0.08), “I am aware of my body language when interacting with Individuals from Maskwacis” (p = 0.06), “I feel that I am aware of my biases when interacting with pregnant women from Maskwacis” (p = 0.009), and “I feel that self-reflection is important in interacting with individuals from Maskwacis” (p = 0.08). Overall the participants from MHS still scored higher on the scale, except when responding to the statement “I feel that I have a good understanding of the reasons some women from Maskwacis may miss appointments and/or not come in for care” and “I feel that relationship building and maintenance plays a key role in enhancing cultural security”. For these 2 statements, the respondents from the PCN scored higher.

4.4.3 Summary of responses to survey questions for HCP self-perceptions.

The following is the summary results for the MSCS (table 7A). The survey as a whole had a large increase in the proportion of the people who agreed and strongly agreed with the statements in the MSCS (+25.11%). Prior to the intervention 20% of participants stated that they agreed or strongly agreed with the statement that they “I feel that I am aware about the culture of

Maskwacis", and only 45% of agree/strongly agreed with the statement "I feel safe and welcome when experiencing the community of Maskwacis". Before to the intervention participants did not feel that they were aware of their own biases when interacting with women from Maskwacis (40%). The pre and post intervention results also show that more of the participants know that Maskwacis culture is dynamic (90% and 100% respectively), and how important relationship building is (95% and 100% respectively).

The post intervention survey showed there were significant increases in the proportion of people who agreed or strongly agreed with the statement "I feel that I am aware of the historical processes that influence health and culture within Maskwacis today" (+64.1%), awareness of Maskwacis culture (+50.6%), "I feel that I am aware of my own biases when interacting with pregnant women from Maskwacis" (+42.3%), and "I feel safe and welcome when experiencing the community of Maskwacis" (+31.5%).

When examining the proportion of participants in each response category for each of the statements, there were substantial increases in agree and strongly agree categories from the pre-intervention survey to the post intervention survey (see tables 7B and 7C). For example, when responding to the statement "I feel safe and welcome in the community of Maskwacis" the proportion of respondents increased in the agree (+25.3%) and strongly agree categories (+6.2%) and when asked "I feel that I have a good understanding of the reasons some women from Maskwacis may miss appointments and/or not come in for care", there was a shift in responses from the somewhat disagree (-15%) and neutral (-19.1%) categories to the agree (+7.1%) and strongly agree (+25.3%) categories. This same trend can be seen in the statement "I feel that I am aware of my own biases when interacting with pregnant women from Maskwacis" where the categories agree (28.8%) and strongly agree (13.5%) both seen substantial increases.

4.4.4 Proportion of participants who responded in either the "do not fully agree" and "strongly agree" categories MSCS

The following are the results for the fisher's exact test done by grouping the proportion of participants whose responses on the MSCS that who responded in a particular way, "do not fully agree" categories and "agree/strongly agree" categories, while being separated by workplace. The pre-intervention survey (Table 7D) had three statements reach statistical significance "I feel that I am aware about the culture of Maskwacis" ($p = 0.07$), "I feel that I have an appropriate

amount knowledge about the resources available to support women and their partners in different communities in Maskwacis” (p = 0.02), “I feel that I am aware of the historical processes that influence health and culture within Maskwacis today” (p = 0.07).

There were no changes in the proportion of people in the post-intervention survey (Table 7E) has no statistically significant statements. It should also be noted that analysis was done for proportions of change over time between “do not fully agree” and “agree/strongly agree” categories with no statements in the CQS reaching statistical significance.

It should also be noted that analysis was done for proportions of change over time between “do not fully agree” and “agree/strongly agree” categories with one statements in the MSCS reaching statistical significance, “I feel that I am aware of the historical processes that influence health and culture within Maskwacis today” (p = 0.035).

4.5 Summary of Quantitative Results

The quantitative results of show that there are shifts in cultural security from HCPs and staff that were created by the intervention. The results suggest that participants who already provide care in Maskwacis could be more aware and comfortable prior to the intervention but that there were increases in many aspects of cultural awareness over the time of this intervention. Overall this study shows that a community-based intervention can be an effective way of providing an opportunity for HCPs and staff to engage Maskwacis in a personal and meaningful way. Using the community-based survey (MSCS) along with a validated survey (CQS) is an effective way to measure differences. It should be noted that there are other ways to analyze CQS, including combining each the statements in each factor into one group, and this was done but there were no statistically significant differences between factors.

Table 2

Average response scores for all participants on the Cultural Intelligence Scale before and after participating in the experiential cultural intervention.

	Pre-Intervention (n=20)	Post-Intervention (n=17)	P-Value
		Mean (SD)	
Cultural Intelligence Scale			
Metacognitive Factor			
I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	5.6 (1.1)	6.1 (0.6)	0.06*
I adjust my culture knowledge as I interact with people from a culture that is unfamiliar to me.	5.8 (0.9)	6.2 (0.7)	0.15
I am conscious of the cultural knowledge I apply to cross cultural interactions.	5.8 (0.9)	6 (0.8)	0.6
I check the accuracy of my cultural knowledge as I interact with people from different cultures.	5.6 (1.3)	6 (0.9)	0.12
Cognitive Factor			
I know the legal and economic systems of other cultures.	4.1 (1.5)	4.5 (1.5)	0.47
I know the rules (e.g. vocabulary, grammar) of other languages.	3.1 (1.1)	4.4 (1.2)	0.001*
I know the cultural values and religious beliefs of other cultures.	4.5 (1.5)	5 (0.87)	0.13
I know the marriage systems of other cultures.	3.85 (1.4)	4.7 (1)	0.02*
I know the arts and crafts of other cultures.	4.5 (1.2)	5.1 (0.9)	0.14

I know the rules for expressing non-verbal behaviours in other cultures.	3.95 (1.1)	5 (0.87)	0.004*
Motivational Factor			
I enjoy interacting with people from different cultures.	6.7 (0.5)	6.8 (0.5)	0.27
I am confident that I can socialize with cultures unfamiliar to me.	5.9 (0.8)	6.2 (0.8)	0.17
I am sure I can deal with the stresses of adjusting to a culture that is new to me.	5.9 (0.9)	6.3 (0.6)	0.07*
I enjoy living in cultures unfamiliar to me.	5.4 (1.2)	5.7 (1.2)	0.39
I am confident that I can get accustomed to the shopping conditions in a different culture.	5.7 (1.1)	5.6 (0.9)	0.87
Behavioural Factor			
I change my verbal behaviour (e.g. accent, tone) when a cross cultural interaction requires it.	5.8 (0.9)	5.7 (1.1)	0.87
I use pause and silence differently to suit different cross-cultural situations.	5.3 (1.3)	5.6 (0.7)	0.12
I vary the rate I speak when a cross cultural situation requires it.	5.6 (0.9)	5.7 (0.6)	0.26
I change my non-verbal behaviour when a cross-cultural situation requires it.	5.6 (0.9)	5.7 (0.7)	0.5
I alter my facial expression when a cross-cultural interaction requires it.	5.2 (1)	5.7 (0.8)	0.11

*Significant difference ($p < 0.10$) between Pre-intervention and Post-Intervention Groups

Table 3A

Average response scores of participants from Maskwacis Health Services (MHS) and the Primary Care Network (PCN) on the Cultural Intelligence Scale before participating in the intervention.

	MHS (n=8)	PCN (n=12)	P-Value
	Mean (SD)		
Cultural Intelligence Scale			
Metacognitive Factor			
I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	6.25 (0.9)	5.2(0.9)	0.01*
I adjust my culture knowledge as I interact with people from a culture that is unfamiliar to me.	6.4 (0.7)	5.3 (0.8)	0.008*
I am conscious of the cultural knowledge I apply to cross cultural interactions.	6.5 (0.5)	5.3 (0.9)	0.004*
I check the accuracy of my cultural knowledge as I interact with people from different cultures.	6.6 (0.5)	4.8 (1.2)	0.0009*
Cognitive Factor			
I know the legal and economic systems of other cultures.	4.9 (1.2)	3.6 (1.4)	0.053*
I know the rules (e.g. vocabulary, grammar) of other languages.	3.4 (1.1)	2.8 (1.3)	0.33
I know the cultural values and religious beliefs of other cultures.	5.3 (1)	4 (1.1)	0.02*
I know the marriage systems of other cultures.	4.5 (1.2)	3.4 (1.4)	0.09*
I know the arts and crafts of other cultures.	4.9 (1.5)	4.3 (1)	0.28
I know the rules for expressing non-verbal behaviours in other cultures.	4.1 (1.1)	3.8 (1.1)	0.57

Motivational Factor			
I enjoy interacting with people from different cultures.	6.8 (0.5)	6.7 (0.5)	0.7
I am confident that I can socialize with cultures unfamiliar to me.	6.3 (0.7)	5.7 (0.9)	0.14
I am sure I can deal with the stresses of adjusting to a culture that is new to me.	6 (1.1)	5.9 (0.8)	0.84
I enjoy living in cultures unfamiliar to me.	5.1 (1.4)	5.5 (1.1)	0.5
I am confident that I can get accustomed to the shopping conditions in a different culture.	5.1 (1.5)	6 (0.6)	0.09*
Behavioural Factor			
I change my verbal behaviour (e.g. accent, tone) when a cross cultural interaction requires it.	6 (1.1)	5.6 (0.8)	0.42
I use pause and silence differently to suit different cross-cultural situations.	5.8 (1)	5 (1.4)	0.21
I vary the rate I speak when a cross cultural situation requires it.	5.6 (0.9)	5.5 (0.9)	0.76
I change my non-verbal behaviour when a cross-cultural situation requires it.	5.8 (1)	5.6 (0.8)	0.68
I alter my facial expression when a cross-cultural interaction requires it.	5.1 (1.4)	5.3 (0.8)	0.79

*Significant difference ($p < 0.10$) between MHS and PCN Pre-intervention

Table 3B

Average response scores of participants from Maskwacis Health Services (MHS) and the Primary Care Network (PCN) on the Cultural Intelligence Scale after participating in the intervention.

	MHS (n=6)	PCN (n=11)	P-Value
		Mean (SD)	
Cultural Intelligence Scale			
Metacognitive Factor			
I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	6.2 (0.7)	5.9 (0.4)	0.2
I adjust my culture knowledge as I interact with people from a culture that is unfamiliar to me.	6.2 (0.8)	6.1 (0.6)	0.8
I am conscious of the cultural knowledge I apply to cross cultural interactions.	6.4 (0.5)	5.5 (0.8)	0.008*
I check the accuracy of my cultural knowledge as I interact with people from different cultures.	6.2 (0.8)	5.8 (0.8)	0.3
Cognitive Factor			
I know the legal and economic systems of other cultures.	4.9 (1.4)	4.1 (0.2)	0.31
I know the rules (e.g. vocabulary, grammar) of other languages.	4.2 (1.2)	4.6 (1.2)	0.5
I know the cultural values and religious beliefs of other cultures.	4.9 (0.9)	5.1 (0.8)	0.59
I know the marriage systems of other cultures.	4.6 (1)	4.8 (1.2)	0.87
I know the arts and crafts of other cultures.	5.1 (1.2)	5 (0.8)	0.82
I know the rules for expressing non-verbal behaviours in other cultures.	5.1 (1.2)	4.9 (0.4)	0.59

Motivational Factor			
I enjoy interacting with people from different cultures.	6.8 (0.3)	6.8 (0.5)	0.48
I am confident that I can socialize with cultures unfamiliar to me.	5.9 (0.8)	6.5 (0.8)	0.12
I am sure I can deal with the stresses of adjusting to a culture that is new to me.	6.3 (0.7)	6.3 (0.5)	0.78
I enjoy living in cultures unfamiliar to me.	5.9 (1.1)	5.4 (1.4)	0.4
I am confident that I can get accustomed to the shopping conditions in a different culture.	5.6 (0.9)	5.7(0.9)	0.87
Behavioural Factor			
I change my verbal behaviour (e.g. accent, tone) when a cross cultural interaction requires it.	5.8 (1.2)	5.5 (0.9)	0.6
I use pause and silence differently to suit different cross-cultural situations.	5.7 (0.5)	5.5 (0.9)	0.64
I vary the rate I speak when a cross cultural situation requires it.	5.7 (0.5)	5.8 (0.7)	0.8
I change my non-verbal behaviour when a cross-cultural situation requires it.	5.7 (0.5)	5.8 (0.9)	0.81
I alter my facial expression when a cross-cultural interaction requires it.	5.7 (0.5)	5.8 (1)	0.83

*Significant difference ($p < 0.10$) between MHS and PCS Post-Intervention

Table 4A

Proportion of participants whose responses on the Cultural Intelligence Scale were in the "Agree" or "Strongly Agree" categories before and after the intervention.

Cultural Intelligence Scale	Pre agree/Strongly Agree	Post Agree/Strongly Agree	Total Difference
		Average Increase	
Metacognitive Factor		**21%**	
I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	55%	88%	+33%
I adjust my culture knowledge as I interact with people from a culture that is unfamiliar to me.	65%	82%	+17%
I am conscious of the cultural knowledge I apply to cross cultural interactions.	65%	84%	+19%
I check the accuracy of my cultural knowledge as I interact with people from different cultures.	60%	76%	+16%
Cognitive Factor		**13.7%**	
I know the legal and economic systems of other cultures.	15%	29.4%	+14.4%
I know the rules (e.g. vocabulary, grammar) of other languages.	0%	11.8%	+11.8%
I know the cultural values and religious beliefs of other cultures.	20%	29.9%	+9.4%
I know the marriage systems of other cultures.	10%	29.4%	+19.4%
I know the arts and crafts of other cultures.	15%	29.4%	+14.4%
I know the rules for expressing non-verbal behaviours in other cultures.	5%	17.7%	+12.7%

Motivational Factor		**3%**	
I enjoy interacting with people from different cultures.	100%	100%	0%
I am confident that I can socialize with cultures unfamiliar to me.	70%	76.5%	+6.5%
I am sure I can deal with the stresses of adjusting to a culture that is new to me.	80%	94.1%	+14.1%
I enjoy living in cultures unfamiliar to me.	55%	58.8%	+3.8%
I am confident that I can get accustomed to the shopping conditions in a different culture.	70%	58.8%	-11.2%
Behavioural Factor		**18.6%**	
I change my verbal behaviour (e.g. accent, tone) when a cross cultural interaction requires it.	60%	76.5%	+16.5%
I use pause and silence differently to suit different cross-cultural situations.	50%	70.6%	+20.6%
I vary the rate I speak when a cross cultural situation requires it.	50%	70.6%	+20.6%
I change my non-verbal behaviour when a cross-cultural situation requires it.	60%	70.6%	+10.6%
I alter my facial expression when a cross-cultural interaction requires it.	40%	64.6%	+24.7%

Table 4B

Proportion of participants whose responses on the Cultural Intelligence Scale that were in the "Strongly Disagree", "Disagree", "Somewhat Disagree", "Neutral", "Somewhat Agree", "Agree", or "Strongly Agree" categories before the intervention.

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
Cultural Intelligence Scale							
Metacognitive Factor							
I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	0%	0%	5%	5%	35%	35%	0%
I adjust my culture knowledge as I interact with people from a culture that is unfamiliar to me.	0%	0%	0%	10%	25%	45%	20%
I am conscious of the cultural knowledge I apply to cross cultural interactions.	0%	0%	0%	10%	25%	40%	25%
I check the accuracy of my cultural knowledge as I interact with people from different cultures.	0%	5%	0%	15%	20%	25%	25%
Cognitive Factor							
I know the legal and economic systems of other cultures.	0%	20%	15%	20%	30%	10%	5%
I know the rules (e.g. vocabulary, grammar) of other languages.	5%	40%	10%	35%	10%	0%	0%
I know the cultural values and religious beliefs of other cultures.	0%	5%	15%	30%	30%	15%	5%
I know the marriage systems of other cultures.	5%	15%	20%	20%	30%	10%	0%
I know the arts and crafts of other cultures.	0%	10%	5%	30%	40%	10%	5%
I know the rules for expressing non-verbal behaviours in other cultures.	0%	10%	25%	30%	30%	5%	0%

Motivational Factor							
I enjoy interacting with people from different cultures.	0%	0%	0%	0%	0%	30%	70%
I am confident that I can socialize with cultures unfamiliar to me.	0%	0%	0%	5%	25%	45%	25%
I am sure I can deal with the stresses of adjusting to a culture that is new to me.	0%	0%	0%	10%	10%	55%	25%
I enjoy living in cultures unfamiliar to me.	0%	0%	0%	35%	10%	30%	25%
I am confident that I can get accustomed to the shopping conditions in a different culture.	0%	5%	0%	5%	20%	55%	15%
Behavioural Factor							
I change my verbal behaviour (e.g. accent, tone) when a cross cultural interaction requires it.	0%	0%	0%	5%	35%	35%	25%
I use pause and silence differently to suit different cross-cultural situations.	0%	5%	5%	10%	30%	35%	15%
I vary the rate I speak when a cross cultural situation requires it.	0%	0%	0%	15%	25%	50%	10%
I change my non-verbal behaviour when a cross-cultural situation requires it.	0%	0%	0%	10%	30%	45%	15%
I alter my facial expression when a cross-cultural interaction requires it.	0%	0%	0%	30%	30%	30%	10%

Table 4C

Proportion of participants whose responses on the Cultural Intelligence Scale that were in the "Strongly Disagree", "Disagree", "Somewhat Disagree", "Neutral", "Somewhat Agree", "Agree", or "Strongly Agree" categories after the intervention.

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
Cultural Intelligence Scale							
Metacognitive Factor							
I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	0%	0%	0%	0%	11.8%	70.6%	17.6%
I adjust my culture knowledge as I interact with people from a culture that is unfamiliar to me.	0%	0%	0%	0%	17.6%	47.1%	35.3%
I am conscious of the cultural knowledge I apply to cross cultural interactions.	0%	0%	0%	0%	11.8%	70.6%	17.6%
I check the accuracy of my cultural knowledge as I interact with people from different cultures.	0%	0%	0%	5.9%	17.6%	47.1%	29.4%
Cognitive Factor							
I know the legal and economic systems of other cultures.	5.9%	0%	17.6%	23.5%	23.5%	23.5%	5.9%
I know the rules (e.g. vocabulary, grammar) of other languages.	0%	11.8%	5.9%	23.5%	47.1%	11.8%	0%
I know the cultural values and religious beliefs of other cultures.	0%	0%	5.9%	17.6%	47.1%	29.4%	0%
I know the marriage systems of other cultures.	0%	0%	11.8%	35.3%	23.5%	29.4%	0%
I know the arts and crafts of other cultures.	0%	0%	5.9%	17.6%	47.1%	23.5%	5.9%
I know the rules for expressing non-verbal behaviours in other cultures.	0%	0%	5.9%	11.8%	64.7%	11.8%	5.9%

Motivational Factor							
I enjoy interacting with people from different cultures.	0%	0%	0%	0%	0%	17.6%	82.4%
I am confident that I can socialize with cultures unfamiliar to me.	0%	0%	0%	0%	23.5%	35.3%	41.2%
I am sure I can deal with the stresses of adjusting to a culture that is new to me.	0%	0%	0%	0%	5.9%	58.8%	35.3%
I enjoy living in cultures unfamiliar to me.	0%	0%	5.9%	11.8%	23.5%	29.4%	29.4%
I am confident that I can get accustomed to the shopping conditions in a different culture.	0%	0%	0%	11.8%	29.4%	47.1%	11.8%
Behavioural Factor							
I change my verbal behaviour (e.g. accent, tone) when a cross cultural interaction requires it.	0%	0%	5.9%	11.8%	5.9%	64.7%	11.8%
I use pause and silence differently to suit different cross-cultural situations.	0%	0%	0%	11.8%	17.6%	70.6%	0%
I vary the rate I speak when a cross cultural situation requires it.	0%	0%	0%	0%	35.3%	58.8%	5.9%
I change my non-verbal behaviour when a cross-cultural situation requires it.	0%	0%	0%	5.9%	23.5%	64.7%	5.9%
I alter my facial expression when a cross-cultural interaction requires it.	0%	0%	0%	5.9%	29.5%	52.9%	1.8%

Table 4D
Proportion of participants whose responses on the Cultural Intelligence Scale that who responded in a particular way, "Do not Agree" categories and "Agree Strongly Agree" categories, and separated by workplace pre-intervention.

	MHS (n=8)		PCN (n=12)		P Value
	% (n)				
Cultural Intelligence Scale	Do not Agree	Agree/ Strongly	Do not Agree	Agree/ Strongly	
Metacognitive Factor					
I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	0% (0)	100% (8)	17% (2)	83% (10)	0.49
I adjust my culture knowledge as I interact with people from a culture that is unfamiliar to me.	0% (0)	100% (8)	17% (2)	83% (10)	0.49
I am conscious of the cultural knowledge I apply to cross cultural interactions.	0% (0)	100% (8)	17% (2)	83% (10)	0.49
I check the accuracy of my cultural knowledge as I interact with people from different cultures.	0% (0)	100% (8)	33% (4)	67% (8)	0.11
Cognitive Factor					
I know the legal and economic systems of other cultures.	38% (3)	62% (5)	67% (8)	33% (4)	0.36
I know the rules (e.g. vocabulary, grammar) of other languages.	88% (7)	12% (1)	92% (11)	8% (1)	1
I know the cultural values and religious beliefs of other cultures.	25% (2)	75% (6)	67% (8)	33% (4)	0.17
I know the marriage systems of other cultures.	38% (3)	62% (5)	75% (9)	25% (3)	0.16
I know the arts and crafts of other cultures.	38% (3)	62% (5)	50% (6)	50% (6)	0.67
I know the rules for expressing non-verbal behaviours in other cultures.	50% (4)	50% (4)	75% (9)	25% (3)	0.35

Motivational Factor					
I enjoy interacting with people from different cultures.	0% (0)	100% (8)	0% (0)	100% (12)	1
I am confident that I can socialize with cultures unfamiliar to me.	0% (0)	100% (8)	8% (1)	92% (11)	1
I am sure I can deal with the stresses of adjusting to a culture that is new to me.	13% (1)	87% (7)	8% (1)	92% (11)	1
I enjoy living in cultures unfamiliar to me.	50% (4)	50% (4)	25% (3)	75% (9)	0.35
I am confident that I can get accustomed to the shopping conditions in a different culture.	33% (2)	67% (6)	0% (0)	100% (12)	0.14
Behavioural Factor					
I change my verbal behaviour (e.g. accent, tone) when a cross cultural interaction requires it.	0% (0)	100% (8)	8% (1)	92% (11)	1
I use pause and silence differently to suit different cross-cultural situations.	13% (1)	87% (7)	25% (3)	75% (9)	0.61
I vary the rate I speak when a cross cultural situation requires it.	13% (1)	87% (7)	17% (2)	83% (10)	1
I change my non-verbal behaviour when a cross-cultural situation requires it.	13% (1)	87% (7)	8% (1)	92% (11)	1
I alter my facial expression when a cross-cultural interaction requires it.	50% (4)	50% (4)	17% (2)	83% (10)	0.16

*Significant difference ($p < 0.10$) between MHS and PCN pre-intervention

Table 4E

Proportion of participants whose responses on the Cultural Intelligence Scale that who responded in a particular way, "Do not Agree" categories and "Agree Strongly Agree" categories, and separated by workplace post-intervention.

	MHS (n=6)		PCN (n=11)		P Value
	% (n)				
Cultural Intelligence Scale	**Do not Agree**	**Agree/ Strongly**	**Do not Agree**	**Agree/ Strongly**	
Metacognitive Factor					
I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	0% (0)	100% (6)	0% (0)	100% (11)	1
I adjust my culture knowledge as I interact with people from a culture that is unfamiliar to me.	0% (0)	100% (6)	0% (0)	100% (11)	1
I am conscious of the cultural knowledge I apply to cross cultural interactions.	0% (0)	100% (6)	9% (1)	91% (10)	1
I check the accuracy of my cultural knowledge as I interact with people from different cultures.	0% (0)	100% (6)	9% (1)	91% (10)	1
Cognitive Factor					
I know the legal and economic systems of other cultures.	50% (3)	50% (3)	45% (5)	65% (6)	1
I know the rules (e.g. vocabulary, grammar) of other languages.	33% (2)	67% (4)	45% (5)	55% (6)	1
I know the cultural values and religious beliefs of other cultures.	17% (1)	83% (5)	27% (3)	73% (8)	1
I know the marriage systems of other cultures.	17% (1)	83% (5)	64% (7)	36% (4)	0.13
I know the arts and crafts of other cultures.	17% (1)	83% (5)	27% (3)	73% (8)	1
I know the rules for expressing non-verbal behaviours in other cultures.	17% (1)	83% (5)	18% (2)	82% (9)	1

Motivational Factor					
I enjoy interacting with people from different cultures.	0% (0)	100% (6)	0% (0)	100% (11)	1
I am confident that I can socialize with cultures unfamiliar to me.	0% (0)	100% (6)	0% (0)	100% (11)	1
I am sure I can deal with the stresses of adjusting to a culture that is new to me.	0% (0)	100% (6)	0% (0)	100% (11)	1
I enjoy living in cultures unfamiliar to me.	33% (2)	67% (4)	9% (1)	91% (10)	0.51
I am confident that I can get accustomed to the shopping conditions in a different culture.	0% (0)	100% (6)	18% (2)	82% (9)	0.51
Behavioural Factor					
I change my verbal behaviour (e.g. accent, tone) when a cross cultural interaction requires it.	0% (3)	100% (6)	27% (3)	73% (8)	0.51
I use pause and silence differently to suit different cross-cultural situations.	0% (0)	100% (6)	18% (2)	82% (9)	0.51
I vary the rate I speak when a cross cultural situation requires it.	0% (0)	100% (6)	0% (0)	100% (11)	1
I change my non-verbal behaviour when a cross-cultural situation requires it.	0% (0)	100% (6)	9% (1)	91% (10)	1
I alter my facial expression when a cross-cultural interaction requires it.	0% (0)	100% (6)	9% (1)	91% (10)	1

*Significant difference ($p < 0.10$) between MHS and PCN post-intervention

Table 5
Average scores for all participants on the Maskwacis-Specific Cultural Scale before and after participating in the intervention.

Maskwacis Specific Cultural Scale	Pre-Intervention (n=20)	Post-Intervention (n=17)	P-Value
	Mean (SD)		
I feel that I am aware about the culture of Maskwacis.	4.45 (1.6)	5.7(0.7)	0.01*
I feel safe and welcome when experiencing the community of Maskwacis.	5.2 (1.7)	6 (1.3)	0.053*
I feel that Maskwacis culture is dynamic and may vary from community to community and family to family.	6.4 (0.9)	6.7 (0.5)	0.56
I feel that I can communicate well with individuals from Maskwacis.	6 (0.9)	6.4 (0.6)	0.07*
I feel that I have a good understanding of the reasons some women from Maskwacis may miss appointments and/or not come in for care.	6.7 (0.6)	6.8 (0.4)	0.71
I feel that I am able to adapt easily when interacting with women from Maskwacis when needed.	6.4 (0.9)	6.7 (0.6)	0.21
I feel that I have an appropriate amount knowledge about the resources available to support women and their partners in different communities in Maskwacis.	4.7 (1.3)	6.1 (0.7)	0.003*
I feel that I am aware of the historical processes that influence health and culture within Maskwacis today.	5.2 (1.1)	5.9 (0.9)	0.03*
I feel that I am aware of my own biases when interacting with pregnant women from Maskwacis.	5.7 (1)	6.1 (0.6)	0.2
I am aware of my body language when interacting with Individuals from Maskwacis.	6.1 (0.8)	6.4 (1.4)	0.66
I feel that relationship building and maintenance plays a key role in enhancing cultural security.	6.1 (0.8)	6.5 (0.5)	0.09*
I feel that self-reflection is important in interacting with individuals from Maskwacis.	4.9 (1.5)	5.9 (1.3)	0.03*

*Significant difference ($p < 0.10$) between Pre-intervention and Post-Intervention Groups

Table 6A
Average response scores of participants from Maskwacis Health Services (MHS) and the Primary Care Network (PCN) on the Maskwacis Specific Cultural Scale before participating in the intervention

	MHS (n=8)	PCN (n=12)	P-Value
	Mean (SD)		
Maskwacis Specific Cultural Scale			
I feel that I am aware about the culture of Maskwacis.	5.5 (1.3)	3.6 (1.4)	0.01*
I feel safe and welcome when experiencing the community of Maskwacis.	6.3 (1.2)	6.1 (1.7)	0.02*
I feel that Maskwacis culture is dynamic and may vary from community to community and family to family.	6.9 (0.4)	6.1 (0.1)	0.06*
I feel that I can communicate well with individuals from Maskwacis.	6.4 (1.1)	5.7 (0.7)	0.07*
I feel that I have a good understanding of the reasons some women from Maskwacis may miss appointments and/or not come in for care.	6.4 (0.7)	5.9 (0.8)	0.21
I feel that I am able to adapt easily when interacting with women from Maskwacis when needed.	6.4 (0.7)	5.8 (0.8)	0.15
I feel that I have an appropriate amount knowledge about the resources available to support women and their partners in different communities in Maskwacis.	5.9 (1.2)	4.3 (1.2)	0.01*
I feel that I am aware of the historical processes that influence health and culture within Maskwacis today.	5.4 (1.2)	4.3 (1.2)	0.55
I feel that I am aware of my own biases when interacting with pregnant women from Maskwacis.	5.6 (1.1)	4.8 (1.1)	0.13
I am aware of my body language when interacting with Individuals from Maskwacis.	6.3 (1)	5.3 (0.9)	0.03*
I feel that relationship building and maintenance plays a key role in enhancing cultural security.	6.9 (0.4)	6.7 (0.7)	0.42
I feel that self-reflection is important in interacting with individuals from Maskwacis.	6.9 (0.4)	6.1(1)	0.04*

*Significant difference ($p < 0.10$) between MHS and PCN Groups.

Table 6B

Average response scores of participants from Maskwacis Health Services (MHS) and the Primary Care Network (PCN) on the Maskwacis Specific Cultural Scale after participating in the intervention.

	MHS (n=6)	PCN (n=11)	P-Value
	Mean (SD)		
Maskwacis Specific Cultural Scale			
I feel that I am aware about the culture of Maskwacis.	6.1 (0.3)	5.3(0.7)	0.005*
I feel safe and welcome when experiencing the community of Maskwacis.	6.4 (0.7)	5.5 (1.6)	0.13
I feel that Maskwacis culture is dynamic and may vary from community to community and family to family.	6.7 (0.5)	6.6 (0.5)	0.86
I feel that I can communicate well with individuals from Maskwacis.	6.7 (0.5)	6.1 (0.6)	0.06*
I feel that I have a good understanding of the reasons some women from Maskwacis may miss appointments and/or not come in for care.	6.2 (1)	6.5 (0.5)	0.71
I feel that I am able to adapt easily when interacting with women from Maskwacis when needed.	6.5 (0.5)	6.5 (0.5)	0.83
I feel that I have an appropriate amount knowledge about the resources available to support women and their partners in different communities in Maskwacis.	6.4(0.5)	5.4 (1.7)	0.08*
I feel that I am aware of the historical processes that influence health and culture within Maskwacis today.	6.3 (0.5)	5.8 (0.9)	0.11
I feel that I am aware of my own biases when interacting with pregnant women from Maskwacis.	6.4 (0.5)	5.4 (0.9)	0.009*
I am aware of my body language when interacting with Individuals from Maskwacis.	6.3 (0.7)	5.8 (0.5)	0.06*
I feel that relationship building and maintenance plays a key role in enhancing cultural security.	6.7(0.4)	6.8 (0.7)	0.9
I feel that self-reflection is important in interacting with individuals from Maskwacis.	6.8 (0.3)	6.3(0.7)	0.08*

*Significant difference ($p < 0.10$) between MHS and PCN Groups.

Table 7A

Proportion of participants whose responses on the Maskwacis Specific Cultural Scale that were in the "Agree" or "Strongly Agree" categories before and after the intervention.

Maskwacis Specific Cultural Scale	Agree/ Strongly Agree	Agree/ Strongly Agree	Total Difference
	Average Increase		
		25%	
I feel that I am aware about the culture of Maskwacis.	20%	70.6%	+50.6%
I feel safe and welcome when experiencing the community of Maskwacis.	45%	76.5%	+31.5%
I feel that Maskwacis culture is dynamic and may vary from community to community and family to family.	90%	100%	+10%
I feel that I can communicate well with individuals from Maskwacis.	80%	94.1%	+14.1%
I feel that I have a good understanding of the reasons some women from Maskwacis may miss appointments and/or not come in for care.	80%	94.1%	+14.1%
I feel that I am able to adapt easily when interacting with women from Maskwacis when needed.	80%	100%	+20%
I feel that I have an appropriate amount knowledge about the resources available to support women and their partners in different communities in Maskwacis.	50%	82.3%	+32.3%
I feel that I am aware of the historical processes that influence health and culture within Maskwacis today.	30%	94.1%	+64.1%
I feel that I am aware of my own biases when interacting with pregnant women from Maskwacis.	40%	82.3%	+42.3%
I am aware of my body language when interacting with Individuals from Maskwacis.	65%	82.3%	+17.3%
I feel that relationship building and maintenance plays a key role in enhancing cultural security.	95%	100%	+5%
I feel that self-reflection is important in interacting with individuals from Maskwacis.	85%	100%	+15%

Table 7B

Proportion of participants whose responses on the Cultural Intelligence Scale that were in the "Strongly Disagree", "Disagree", "Somewhat Disagree", "Neutral", "Somewhat Agree", "Agree", or "Strongly Agree" categories before the intervention.

Maskwacis Specific Cultural Scale	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
I feel that I am aware about the culture of Maskwacis.	5%	10%	10%	15%	40%	10%	10%
I feel safe and welcome when experiencing the community of Maskwacis.	5%	0%	5%	30%	15%	10%	35%
I feel that Maskwacis culture is dynamic and may vary from community to community and family to family.	0%	0%	0%	10%	0%	30%	60%
I feel that I can communicate well with individuals from Maskwacis.	0%	0%	0%	10%	10%	55%	25%
I feel that I have a good understanding of the reasons some women from Maskwacis may miss appointments and/or not come in for care.	0%	0%	0%	5%	10%	55%	30%
I feel that I am able to adapt easily when interacting with women from Maskwacis when needed.	0%	0%	0%	5%	15%	50%	30%
I feel that I have an appropriate amount knowledge about the resources available to support women and their partners in different communities in Maskwacis.	0%	5%	15%	25%	5%	40%	10%
I feel that I am aware of the historical processes that influence health and culture within Maskwacis today.	0%	15%	20%	20%	30%	25%	5%
I feel that I am aware of my own biases when interacting with pregnant women from Maskwacis.	0%	0%	10%	15%	35%	30%	10%
I am aware of my body language when interacting with Individuals from Maskwacis.	0%	0%	0%	20%	15%	45%	20%
I feel that relationship building and maintenance plays a key role in enhancing cultural security.	0%	0%	0%	0%	5%	15%	80%
I feel that self-reflection is important in interacting with individuals from Maskwacis.	0%	0%	0%	5%	10%	25%	60%

Table 7C

Proportion of participants whose responses on the Cultural Intelligence Scale that were in the "Strongly Disagree","Disagree", "Somewhat Disagree", "Neutral", "Somehwhat Agree", "Agree", or "Strongly Agree" categories after the intervention.

Maskwacis Specific Cultural Scale	**Strongly Disagree**	**Disagree**	**Somewhat Disagree**	**Neutral**	**Somewhat Agree**	**Agree**	**Strongly Agree**
I feel that I am aware about the culture of Maskwacis.	0%	0%	0%	5.9%	23.5%	64.7%	5.9%
I feel safe and welcome when experiencing the community of Maskwacis.	0%	5.9%	0%	0%	17.6%	35.3%	41.2%
I feel that Maskwacis culture is dynamic and may vary from community to community and family to family.	0%	0%	0%	0%	0%	35.3%	64.7%
I feel that I can communicate well with individuals from Maskwacis.	0%	0%	0%	0%	5.9%	47.1%	47.1%
I feel that I have a good understanding of the reasons some women from Maskwacis may miss appointments and/or not come in for care.	5.9%	0%	0%	0%	0%	29.4%	64.7%
I feel that I am able to adapt easily when interacting with women from Maskwacis when needed.	0%	0%	0%	0%	0%	47.1%	52.9%
I feel that I have an appropriate amount knowledge about the resources available to support women and their partners in different communities in Maskwacis.	0%	5.9%	0%	5.9%	5.9%	47.1%	35.3%
I feel that I am aware of the historical processes that influence health and culture within Maskwacis today.	0%	0%	0%	5.9%	5.9%	64.7%	23.5%
I feel that I am aware of my own biases when interacting with pregnant women from Maskwacis.	0%	0%	0%	11.8%	5.9%	58.8%	23.5%
I am aware of my body language when interacting with Individuals from Maskwacis.	0%	0%	0%	0%	17.6%	58.8%	23.5%
I feel that relationship building and maintenance plays a key role in enhancing cultural security.	0%	0%	0%	0%	0%	23.5%	76.5%
I feel that self-reflection is important in interacting with individuals from Maskwacis.	0%	0%	0%	0%	5.9%	23.5%	70.6%

Table 7D

Proportion of participants for the Maskwacis Specific Scale who responded in a particular way, "Do not Agree" categories and "Agree, Strongly Agree" categories, and separated by workplace preintervention.

	MHS (n=8)		PCN (n=12)		P Value
	% (n)				
Maskwacis Specific Cultural Scale	**Do not Agree**	**Agree/ Strongly**	**Do not Agree**	**Agree/ Strongly**	
I feel that I am aware about the culture of Maskwacis.	13% (1)	87% (7)	58% (7)	42% (5)	0.07*
I feel safe and welcome when experiencing the community of Maskwacis.	0% (0)	100% (8)	17% (2)	83% (10)	0.49
I feel that Maskwacis culture is dynamic and may vary from community to community and family to family.	13% (1)	87% (7)	8% (1)	92% (11)	1
I feel that I can communicate well with individuals from Maskwacis.	0% (0)	100% (8)	8% (1)	92% (11)	1
I feel that I have a good understanding of the reasons some women from Maskwacis may miss appointments and/or not come in for care.	0% (0)	100% (8)	8% (1)	92% (11)	1
I feel that I am able to adapt easily when interacting with women from Maskwacis when needed.	0% (0)	100% (8)	8% (1)	92% (11)	1
I feel that I have an appropriate amount knowledge about the resources available to support women and their partners in different communities in Maskwacis.	13% (1)	87% (7)	67% (8)	33% (4)	0.02*
I feel that I am aware of the historical processes that influence health and culture within Maskwacis today.	13% (1)	87% (7)	58% (7)	42% (5)	0.07*
I feel that I am aware of my own biases when interacting with pregnant women from Maskwacis.	13% (1)	87% (7)	33% (4)	67% (8)	0.6
I am aware of my body language when interacting with Individuals from Maskwacis.	13% (1)	83% (7)	25% (3)	75% (9)	0.61
I feel that relationship building and maintenance plays a key role in enhancing cultural security.	0% (0)	100% (8)	0% (0)	100% (12)	1
I feel that self-reflection is important in interacting with individuals from Maskwacis.	0% (0)	100% (0)	8% (1)	92% (11)	1

*Significant difference ($p < 0.10$) between MHS and PCN pre-intervention

Table 7E

Proportion of participants on the Maskwacis Specific Scale who responded in a particular way, "Do not Agree" categories and "Agree Strongly, Agree Categories", and separated by workplace post-intervention.

Maskwacis Specific Cultural Scale	MHS (n=6)		PCN (n=11)		P Value
	% (n)				
	Do not Agree	Agree/ Strongly	Do not Agree	Agree/ Strongly	
I feel that I am aware about the culture of Maskwacis.	17% (1)	83% (5)	0% (0)	100% (11)	0.35
I feel safe and welcome when experiencing the community of Maskwacis.	0% (0)	100% (6)	9% (1)	92% (10)	1
I feel that Maskwacis culture is dynamic and may vary from community to community and family to family.	0% (0)	100% (6)	0% (0)	100% (11)	1
I feel that I can communicate well with individuals from Maskwacis.	0% (0)	100% (6)	0% (0)	100% (11)	1
I feel that I have a good understanding of the reasons some women from Maskwacis may miss appointments and/or not come in for care.	0% (0)	100% (6)	9% (1)	91% (10)	1
I feel that I am able to adapt easily when interacting with women from Maskwacis when needed.	0% (0)	100% (6)	0% (0)	100% (11)	1
I feel that I have an appropriate amount knowledge about the resources available to support women and their partners in different communities in Maskwacis.	0% (0)	100% (6)	18% (2)	82% (9)	0.51
I feel that I am aware of the historical processes that influence health and culture within Maskwacis today.	0% (0)	100% (6)	9% (1)	91% (10)	1
I feel that I am aware of my own biases when interacting with pregnant women from Maskwacis.	17% (1)	83% (5)	9% (0)	91% (11)	1
I am aware of my body language when interacting with Individuals from Maskwacis.	0% (0)	100% (6)	0% (0)	100% (11)	1
I feel that relationship building and maintenance plays a key role in enhancing cultural security.	0% (0)	100% (6)	0% (0)	100% (11)	1
I feel that self-reflection is important in interacting with individuals from Maskwacis.	0% (0)	100% (6)	0% (1)	100% (11)	1

*Significant difference ($p < 0.10$) between MHS and PCN post-intervention

Chapter 5: Qualitative Results

5.1 Summary of Data

The main objectives of the intervention was to break down barriers and foster relationship building, both objectives were discussed thoroughly in the interview process. HCPS and staff talked about their knowledge specific to Maskwacis, the effectiveness of the intervention and why, the impact on care, lessons learned, and barriers. The activity facilitators were also given the opportunity to provide their perspectives, although, it is important to mention that although members of the Community Advisory Committee (CAC) did facilitate most of the activities, not all the facilitators were apart of the CAC. The participants included physicians, nurses, social workers, and frontline staff from both the Wetaskiwn Primary Care Network (PCN) and Maskwacis Health Services (MHS) as well the intervention facilitators. There were a 9 HCPs and staff that participated in the interviews, 4 from the PCN and 5 from MHS, and 4 facilitators as well for a total of 13 interviews.

5.2 HCPs and staff experiences and knowledge specific to Maskwacis

There are many challenges when it comes to providing care for women from Maskwacis. During the interviews, healthcare providers were asked what types of challenges they were seeing when working with women from Maskwacis. The most common issue brought up was transportation, and this same challenge was brought up in the previous study done with same HCPs and staff (Oster & Bruno et al, 2016). Although interviewees differentiated between the challenges of finding a ride, and the overall inadequate infrastructure of roads in Maskwacis, we can see that even you may have a ride, transportation can still be an issue. Below is a quote from healthcare providers that show that they are aware of the issue of transportation, whether it is not having a ride or having ride but not being to make it to their appointment because of the roads.

> probably the biggest one we see is transportation or getting to their appointments. It's definitely, like it is an everyday occurrence where somebody has to cancel based on transportation. So, and that affects, that has a trickle-down affect, not just for the doctors scheduling that day, but then we have to find room for them on like the next day.
>
> - HCP

5.3 Perspectives on the Effectiveness of Intervention

5.3.1 Community Led and Implemented

As discussed in Chapter 3, the intervention was fully community led, and for the most part by our CAC, who also had a role in the facilitation of the activities. Three of the 4 facilitators were on the CAC, and provided valuable guidance to the development and execution of the intervention. The CAC directed me and Dr. Richard Oster to gift ceremonial prints to the Sundance, and on Friday July 8th, we headed to the Sundance grounds to offer protocol. The next day we woke up at 4:30 am to see the Sundance in person and it was a powerful experience. This is important because the Sundance ceremony is an integral part of healing, both at the individual and community level. One of the facilitators talked about when "we bring those in as offerings to celebrate and ask for blessing for our community. So, when those prints are hanging in the air and off the poles, our belief is that the Creator blesses those prints and those blessings come through the wind and throughout the year for us, and that is our belief, and the other ceremonies are to support what we are looking for in our work and what we are doing". The CAC knew ceremony would be the best way to engage and build relationships, as ceremony is one of the many strengths of Maskwacis, and the facilitators knew in order for these HCPs and staff to understand Maskwacis and its residents, they must first engage in ceremony.

Another event the CAC knew the HCPs and staff needed to attend was the annual pow-wow. As mentioned earlier the pow-wow experience included activities at two locations, first at Rick Lightning's house, then we proceeded to the pow-wow grounds. The following two quotes captures the CAC's specific objective of having the HCPs and staff experience the Maskwacis, and specifically the pow-wow, in a good way.

> these professionals that you brought was the first step of the first encounter with them with our people, even though they have been dealing with them in a professional term, outside in a crisis state, this [intervention] was taking them outside that and put them in a different frame of mind because now they actually participating in and eating and laughing and seeing the other side of the Indians they work with, and so that was the first encounter with, with healthy Indians.
>
> - Facilitator

> the second part of the powwow was that it created an awareness of what we are doing because they have all been scared to come to pow-wow's but they were safe because we were there to be their supports, but also gave them that opportunity to watch the dancing and hear the songs, and see, again, the positiveness of our people. So, the whole day was based on positives and healthiness and they seen as healthy Indians, rather than people in crisis. So, when I am bringing that balance slowly, or teeter totter is slowly, more even than before it was just a one sided, dealing with crises they always see Indians in crisis and that is their thought process. Whereas going through that they, its kind of levelled the teeter totter, for awareness, of healthy people
>
> - Facilitator

Having the HCPs and staff attend a feast ceremony was also a deliberate activity and provided participants with an opportunity to meaningful engage with the community outside of the clinic, but also to show gratitude toward the HCPs and staff for their services and contributions to Maskwacis.

5.3.2 Informal, flexible, and personal.

The most cited theme offered by the participants and facilitators in the interviews was the building of meaningful personal connections through the intervention, and how these meaningful connections were established. HCPs and staff often talked about how individuals from Maskwacis would come into their clinic, and they would be able to break the ice more effectively, and how the intervention gave them an opportunity to engage on a more personal level in clinical interactions. A facilitator also talked about having individuals from the community share their experiences and "making it more personal and not very academic but more their personal stories about they became involved in the healthcare profession and how they came to Maskwacis." This HCPs sentiment mirrors that of the facilitators, "I think it was really good, I really enjoyed it. The nature of what you guys did, that was nice because it was not too didactic which was really nice, a little bit more open and a little bit more chill and that made it a lot easier."

HCPs and staff also discussed how they learned more about the social aspects of Maskwacis. For example, one HCP talked about how they "learned more of the sensitive side of things, you know, how important family is and not just your blood family, but like extended family and someone will help you if they can, run you to an appointment, get whatever, watch you kids while you are away.". This type of social awareness is important because itis provides valuable insights into the day-to-day lives of residents of Maskwacis, and this allows for better understandings of why some people may or may not come in for care.

Food was brought up frequently by the participants. One HCP talked about how they would bring people together and, "[t]he first thing that always comes to mind is food. Food always brings people together…so having public engagement with food could be very useful". The facilitators also brought up the role of food and how it brought people together during the intervention and how it should be used in any future work, "[s]haring food is always a good way of breaking the ice with people because you are sharing a life sustaining materials, and think all cultures, a certain appreciation or observance of that whole process, of eating together with other people and so on". Food is also a key part of ceremony, especially after the ceremony and everyone is sitting together and sharing their experiences.

5.4 Impact of Intervention on care

HCPs and staff talked about being more aware of the community of Maskwacis. This awareness was developed in several ways including ceremony, education, and visiting the community. For example, after the sweat lodge ceremony was completed and a participant had time to reflect on their experience they describe it as

> an amazingly eye-opening experience and for me emotionally and spiritually on a very personal level. It was really amazing to be there and has opened my eyes, I think it was sort of the gateway for me to be comfortable to ask about culture, and ask about, you know, ceremony and tradition
>
> - HCP

Through the sweat lodge, HCPs and staff were in the community, participating in ceremony, and the facilitator used the ceremony as an educational experience.

Further insights into HCPs' and staff experiences with the sweat lodge ceremony demonstrate how HCPs and staff intend to bring their experiences with them back to the clinic. The sweat lodge was described as "a great experience, from both physical and spiritual perspective. I felt it was a very, it was almost like feeling like a direct ability to bond with the cultural relief system which I appreciated. To hear it firsthand rather than to be watching it on the video and listening to the songs, to hear them reverberating in a sweat lodge, while under the conditions of heat and perspiration added a lot more to my understanding of what happens during one and what it's purpose is and, you know, if I hadn't done that I might have just said "you know, if you felt like a sweat maybe would help you", whereas now I can almost say "a sweat would help" and make that as an recommendation rather than just an option". Furthering this sentiment, the same HCP explains, "from a sweat perspective I have talked to so many adolescents about incorporating ceremony and engaging with elders in the community and considering a sweat as a way to, as part of their mental health treatment"

HCPs and staff often talked about what they could bring from experiencing a ceremony to change their professional practice. For example, one HCP stated, "practical things you are talking about are things like, when a baby is born and some of the practices are done in the community and the traditions and the cultural things. For instance, when the babies cord falls off and what people do with that".

The following quotes describe the impact of ceremony has had on them and how they are more likely to recommend ceremony in their practice because they experienced one, "I think there is something to that and I do think that ceremony has an important role in peoples' health and now that I understand the ceremony it is much easier to make it a recommendation rather than an option".

Another HCP talked about how when a patient comes in and shares that they have lost a loved one, then the HCP can provide practical advice on diet and nutrition. Usually during a feast, the hosts provide large quantities of food for not only their family, but also for friends and community members, but because of the sheer amount of food that is given out during a feast, healthy options are not always available, and the HCP explains "now if I know somebody died or I know something is going on I will ask them are going to be attending the feast this weekend?

Well okay let's make a plan for how we are going to deal with the extra calories and insulin requirements and this and that so that you can attend".

Communication was also brought up, after attending some of the activities and an HCP discussed how they may be able to use them as a conversation's starter in the clinic. The HCPs talked about how something as simple as attending a pow-wow would open up opportunities to better engage with the patient that walked through their doors. For example, a participant described how attending the pow-wow would give them more exposure to the community and if "someone comes to my office that I have seen at a pow-wow there's that sense of connecting which I think is really, really important, so if one my clients see me out there (Maskwacis) they will know that I am not stand-offish toward their culture, I am willing to, you know, just be part of it when it is appropriate and part of it is hopefully vice versa right? They would kind of understand where I am coming from and we can all still connect". Another HCP talks about how "if the topic comes up then yeah it's, it's interesting and when you say you have been to a pow-wow they get a smile on their face going okay great, you know".

Through the intervention experiences, HCPs and staff reported they can potentially begin the process of bridging the gap and meaningfully engage with patients. Another participant echoed this sentiment when they stated, "I had a patient today actually, one of my patients and he was wearing a pendant, and I was like 'oh what is that?", it was First Nations patient, and he was explaining to me the colours of what the pendant meant, and you know, that, so now that is engaging me a little bit more and now I want to know more and more. So, I think that's nice". This interaction, specifically the question and explanation of the beaded pendant created safe space for both the HCP and patient to have meaningful interaction.

When describing the intervention in general, a participant talked about how it gives the HCP and patient a point of mutual understanding to work from. "I think you would take a little bit of what you see away with you and being absorbed or engaging in the cultural event, or first of all, kind of conversations with my patients and it gives you another talking point and it will actually help you gain the patients trust a little bit better because you are coming from common ground and you understand certain things". It is through these interactions that HCPs and staff now felt they were better prepared to provide culturally secure care.

5.5 Lessons learned

Several lessons emerged from the interviews. One was that it was important to allow people to experience the activity rather than providing enough information to the participants to allow them feel comfortable in the situation. For, example, when one HCP described their experience they stated, “I think at the time I wished for more explanation as to what was going to happen and what protocol was, but looking back I think it was good for me to walk into them a little bit blind and just accept what was happening.”. This shows that even though the participants might have gone in these activities “blind”, this lack of social primer could be beneficial to the participants as it allowed them to engage on their own terms. The idea of introducing an activity was also brought up by another HCP as they would have found out before the feast ceremony and how “[w]hen you got there maybe it would have been good to have someone explain how people are sitting, and how, like when brought offering, like we did bring … that is the food is going to be blessed and just sort of explain that”. When participating in ceremony, individuals are given the opportunity to ask questions, but there usually is no set way of guiding them through the process.

When asked about how to move forward there was consensus among the participants that the activities needed to be ongoing. The HCPs and staff talked about “further education”, “repeat them annually” and “ongoing engagement” to allow for further opportunities to develop meaningful relationships and foster positive experiences, or as one HCP put it,

> “I think everything that we did was great, and I think further education. So, like in a year if, you know, staff is available to go to some of the things they weren’t able to go to, it would be helpful even for them to be able to experience the feast and, you know, everything that went along with that.”
>
> - HCP

The facilitators also felt ongoing activities were key to sustained health and meaningful relationships or as a facilitator states, “I do not think they are visiting enough”. This sentiment was echoed by different facilitator, but with the message that if the HCPs and staff do decide to engage with the community, then it has to happen over multiple dates or activities, “I think what you need to continue on. In our way of life one sweat does not do it. To be able to have the

opportunity to be able to continue on having sweats and coming to the community and sweating and come into the community to participate. It has to be ongoing, it cannot be a one-shot deal."

More community involvement was cited as a need for future work, especially at the organizational level. Community involvement was viewed as a piece that was missing from the intervention. Some of the HCPs and staff would have liked to see more institutions such as the Royal Canadian Mounted Police or Child Family Services involved with the intervention. Both HCPs and Facilitators believed that showing perspectives of individuals who work on the frontlines would have been beneficial for the HCPs and staff.

5.6 Barriers to participation

Quite a few of the HCPs and staff brought up some of the barriers to being able to participate in the activities. The most frequent barrier brought up was scheduling. HCPs and staff talked about how they plan their summer months in advance and had scheduling conflicts. Getting the activities on everyone's calendars as soon as possible was key to maximum participation. Generally, HCPs and staff discussed that they were open to participating, but issues around "time commitment", "weekday activities', were noted as barriers, or as one HCP put it, "I would have loved to have participated in the pow-wow, and the sweat lodge, and the feast, but they didn't work with my schedule".

HCPs and staff also brought up personal barriers, such as shyness or apprehensiveness because of lack of exposure to the community. Other talked about not wanted to say the wrong thing or upset anyone as a barrier. The HCPs and staff brought up "fear", "shyness", "anxiety" as common reasons they may not want to participate in the intervention, as one HCP put it "The sweat created lots of anxiety for me because I had no idea what to expect". An HCP also shed light on another reason an HCP would not want to participate, "I think that some people would have attitudes that are more derogatory, and that is a reason they don't go or there are concerns of safety or things like that but I know enough from working in the community that I know that's not reasonable". Furthering this idea, a facilitator talks about the tension between communities and how that tension can lead to a breakdown of communication because nobody wants to say the "wrong thing" or "be inappropriate." Finally, one of the facilitators explains,

> "Are they barriers or are they excuses? That is the interesting part, what is the definition of a barrier or is it really an excuse, and if they don't want to do that, then you cannot bring a horse to water. So, it comes down to, if they do not want to participate then fine, just the ones that do come, we just, give them the best time of their lives"
>
> - Facilitator

5.7 Conclusion

During the semi-structured interviews, HCPs and staff talked about the effectiveness of the intervention. HCPs and staff discussed the fact that the intervention was community led and flexible made the experience much more personal and meaningful. They also talked about how they may be able to implement some of the lessons they learned in a clinical setting. HCPs and staff also brought up some of the barriers to participation and gave their perspectives on how to move forward. The facilitators also gave their perspectives on the intervention. Overall the HCPs and staff, and facilitators enjoyed the intervention and were open to following it up with more activities and experiences.

Chapter 6: Discussion and Conclusions

6.1 Summary – context, objective, and methods

Maternal health outcomes in Maskwacis are worse than the general population in Canada, and worse than most First Nations in Alberta; this was an important starting point for this thesis. These statistics have been used to construct an institutional narrative and influence caregiver beliefs that Maskwacis women are unhealthy with limited capacity to care for themselves during pregnancy. Addressing this negative stereotype, or deficit narrative, of Maskwacis was a major objective of our Community Advisory Committee (CAC). The major objectives outlined by the CAC were met, and the results show that with their guidance, using a community-specific and experiential learning approach was effective in shifting beliefs of HCP and staff toward one that begins to understand the strengths of Maskwacis. The CAC, including myself, wanted the HCPs and staff to experience our community in a way that would address the negative narrative, and give them an opportunity to build relationships and experience the community in a good way.

Community-based research can be a challenge, and as an insider researcher, it presented some unique challenges as well as opportunities. These challenges included confronting my own biases, positive and negative, toward my community, navigating my roles as a community member and researcher. Throughout the research my personal knowledge and relationships with the Elders, facilitators, and community members were key to the success of the intervention. I had previous relationships with each of the facilitators and both the MHS and PCN employees. That familiarity provided a research process that was respectful and appropriate, and as mentioned in the introduction, one of the main indicators of success as an inside researcher involves reflexivity (Smith 1999). Reflexivity for this thesis was done in several ways, first, during the monthly CAC meetings, our group routinely had discussions on how the intervention was proceeding and how we could make it more effective. There were also informal reflexive moments as well, including informal conversations driving to and from Maskwacis with Dr. Richard Oster, and with the ENRICH research group lab meetings, as well as debriefing with Dr. Rhonda Bell after each activity. These reflexive moments were key, as the intervention moved forward, these discussions led to valuable insights into creating a space that allowed me to think of ways of how to move forward.

Quantitatively, this thesis examined healthcare providers and staff perceptions and responses to statements on two different surveys, before and after the cultural security intervention. It adds

to the much-needed evidence in relation to cultural awareness training, community based participatory research, and the complex challenges around Indigenous health. Specifically, the challenges HCPs and staff have with interactions with the families from Maskwacis. It also adds valuable knowledge to the work that was already underway with the ENRICH research program. Building from a previous study done by Dr. Richard Oster and myself, we were able to identify a specific need and gap, not only within our own research program, but within the literature. The qualitative data that was collected from HCPs and staff as well as the intervention facilitators provided valuable insights into the interventions' effectiveness and also what we could have done better. The HCPs and staff perspectives on how the intervention would have an impact on care was particularly interesting and should be explored further.

The conclusions of this thesis are discussed in relation to the data collection methods, and will provide insights into the implications. Ultimately, this thesis will aid other researchers, HCPs and staff, and other Indigenous communities if they decide to develop their own cultural security training interventions. Recommendations, convergence of each method, and the strengths and limitations of the study are discussed.

6.2 Quantitative results - summary of key findings

The goal of our quantitative approach and the use of the pre and post surveys, was to determine if there were measurable changes in HCP and staff's cultural awareness after the cultural intervention. The two surveys used provided valuable insight into the effectiveness of the intervention, and overall there were positive gains in responses to all statements in both surveys. HCPs trends in each Cultural Intelligence Scale (CQS) Factor echoed other studies done with the same survey instrument. The Maskwacis Specific Cultural Scale (MSCS) had the biggest increase in positive responses to its statements. This should not come as a surprise as the intervention was focussed on addressing these statements, and less focussed on the CQS.

6.2.1 Cultural Intelligence Scale

To our knowledge this was the first time that the Cultural Intelligence Scale (CQS) was used in an Indigenous community. Previous studies have developed and used the Cultural Intelligence (CQ), but all of them were done in an international context and have not explicitly included Indigenous peoples. We expected that the HCPs and staff responses surveys for both MHS and

the PCN would reflect other studies that have used the same survey instrument. For example, in a study done with a multi-cultural group of undergraduate and graduate students in the US and Australia, the participants engaged in an 8-week experiential CQ education program, and the "[i]nitial empirical findings suggest that the process significantly enhanced all areas of participant CQ development. Participants also indicated that the process provided a meaningful growth experience. Although all areas were significantly affected, the metacognitive and behavior areas of CQ development were most significantly influenced" (MacNab, 2012, p. 81). In a study done with expatriates in Japan, Huff, Song, and Gresch, (2014) found, "the results of this study add[ed] to the growing body of evidence that motivational CQ in particular is able to predict multiple types of cross-cultural adjustment" (p.156). The pre-intervention CQS results from the current study shows that the HCPs and staff from both MHS and the PCN were highly motivated and willing to experience and learn about Maskwacis, and as the intervention proceeded, the HCPs and staff showed their motivation by voluntarily attending activities. Although each activity was not fully attended by all the participants, they were able to bring these experiences back with them to the clinic and share with one another the fact that Maskwacis is not what the negative and deficit-focused place that media makes it out to be.

Each activity did not have full participation from the HCPs and staff. A study done with managers (n=370) showed self-efficacy is a predicator of successful development of cultural intelligence capacities (MacNab & Worthy, 2012). Self-efficacy would contribute to more positive changes in between the pre and post surveys. Also, the activities were not designed specifically for the CQS. For example, we were not focussed on influencing the behaviour of HCPs and staff, rather the informal approach was designed to allow participants to come to internalize and reflect on what they were experiencing and then to use that to change their behaviours and hopefully their practice. The dosage, or number of activities they participated in, is likely to have led to larger increases in the responses to the CQS. For example, for the Cognitive Factor, if HCPs and staff participated in the sweat lodge ceremony, they would have had the opportunity to speak to an Elder one-on-one and could have asked questions and this may have led to a much deeper understanding of the community of Maskwacis. Although the number of activities HCPs and staff participated, or the type, was not analyzed due to the pilot nature of this work and the relatively small numbers of people who participated in some of the

activities, future research could address this question of whether or not the dosage or the type of activities increases a participant's cultural security.

Another key question is how many, for how long, or how frequently, do participants need to participate in cultural activities to benefit? (e.g., how many cultural activities are needed to influence behaviour, cognitive, meta-cognitive and motivation change). In Earley and Ang's (2003) book *Cultural Intelligence: Individual Interactions Across Cultures* they talk about how there is no comprehensive roadmap or framework to effectively influence cultural intelligence. Rather, cultural intelligence is seen as dynamic and multilayered. There is no set amount of activities that will make someone more culturally intelligent. It goes back to whether or not the participants' actions follow up on their responses to the statements within the CQS.

6.2.2 Maskwacis Specific Cultural Scale

The work is novel, relative to the literature on cultural security, and represents one of the only community-based efforts in Canada to develop community-based indicators of cultural security in a First Nations health care setting. It is also the only example I am aware of that documents a process of using these indicators to measure the benefits of an experiential intervention to improve cultural security in an Indigenous health care setting. Some similar work has been done in Nunavut by Rebecca Rich (2016) where they developed indicators based on the circumpolar perspectives via a scoping review, and that study concludes that future work needs to include the perspectives of locals. In another study done with Native American women the researcher illustrates the need for more community-based data collection methods and analysis, and describes their process as being inclusive and effective and they argue using community-based statements has the potential to provide results that truly reflect the community (Christopher, 2008).

Using community based participatory research methods for survey development yielded rich results. The Maskwacis Specific Cultural Scale gave community members, HCPs and Staff, and Elders the opportunity to provide their valuable perspectives into a quantitative instrument that was built to the specific wants/needs of the Maskwacis community, and this led to a survey instrument with statements that reflected this community specifically. Adhering to and trusting the 6 principles specific to Maskwacis outlined in the methods chapter was an important step in this process. The CAC and individual community were able to develop a survey instrument that

reflected Maskwacis better than any survey developed by outsiders without this input could have, and me working in both worlds brought it all together.

6.2.3 Implications of Quantitative Results

In the CQS the results show they the HCPs and staff were aware of their lack of knowledge, and were highly motivated to experience Maskwacis in a good way. Their participation in the intervention showed that they were willing to use that motivation to act. This motivation and the subsequent action resulted in positive shifts in all of the factors and statements by the CQS. Similarly, in the MSCS there were considerable positive shifts in each statement. We expected differences in MHS and PCN employees in both the CQS and MSCS survey instruments because of the MHS employee's location within the community, and the number and variety of interactions they likely have day-to-day with community members before, during and after the intervention.

As mentioned in the literature review, one limitation that occurs in most cultural awareness initiatives, as well in our intervention results, is the exclusive use of self-report measures. Other studies done involving cultural awareness training have shown that HCPs and staff see themselves as more culturally competent than they really are (Gozu et al, 2007). Future studies should try to include an assessment of how patients or clients perceive the care they receive, before and after any intervention.

6.3 Qualitative results – summary of key findings

As mentioned in the introduction, one of the main objectives of the CAC was to address the negative narrative that surrounds Maskwacis, and one of this thesis' goals was to address the Indigenous deficiency discourse. A study done in Australia examined how Indigenous peoples, when framed as a "problem", can lead to less participation in Western systems (Patrick & Moodie, 2016). Showing the strengths of Maskwacis directly addressed this deficiency discourse for HCPs and staff with the ultimate goal of providing culturally secure care for families from Maskwacis.

The intervention's effectiveness can be attributed to adherence to the 6 core principles outlined in figure 3 and explained in the Methods chapter of this thesis. These principles included building and maintain relationships, respect, using a strength-based approach,

incorporating cultural teachings as a foundation, the need to "act now", and the requirement that the research be mutually beneficial to the community and the researcher. Specifically, the intervention was developed to give the opportunity for not only for HCPs and staff, as well as our CAC, to build relationships, but also for the ENRICH to maintain existing relationships. The second principle is respect. Respect has been talked about since the beginning of this project and all related projects. As researchers we need to respect the wants and needs of the community. The intervention accomplished the principle of respect by allowing the CAC to fully guide this initiative. Using a strength-based approach was integral to the intervention, having HCPs and staff experience the strengths of the community through a series of activities was often cited as a positive by the HCPs and staff during the qualitative interviews. The intervention was also an opportunity for the CAC to transmit their wealth of knowledge to HCPs and staff through each activity. Both lunch and learns were more formal educational activities, and the pow-wow, sweat lodge, and feast ceremony were more informal spaces for cultural teachings. The need to act now was also effectively addressed through the intervention. Using an experiential approach forced the HCPs to engage in meaningful action through the activities. Whether it was attendance of a pow-wow, or participating in the sweat lodge, or driving the Jim Omeasoo Center (located in Maskwacis), these actionable items show the HCPs motivation of wanting to build meaningful relationships and moving forward could be attended by the HCPs and staff.

The intervention's impact on HCPs and staff self efficacy when providing care is also a major finding. For example, after attending the sweat lodge HCPs and staff felt confident enough to take some of the ceremonial lessons and experiences back with them, not in a tokenistic or superficial way, but rather recommending ceremony as a part of the patient's overall healthcare plan. Using ceremony in western systems can be a challenge, yet with proper introductions and Elder oversight, it can be achievable.

6.4 Integration of Qualitative and Quantitative Results

During the development of the intervention the CAC felt that the statement "I feel that I am aware of the culture of Maskwacis" was one of the most important objectives to address for HCPs and staff. When examining the qualitative and quantitative results the intervention achieved this objective. For example, the quantitative results for the above statement showed a statistically significant increase of 50.6% in the "agree" and "strongly agree" categories.

Qualitatively the CAC's objective is also seen. The HCPs and staff talked about the intervention as "eye opening", and "educational," and also how they have become "emboldened" and have already had better interactions with individuals and families from Maskwacis. The CAC knew that if the HCPs and staff were to experience the community in a good way, and listen and learn, then the intervention would not only educate, but also would give the HCPs and staff and opportunity to build meaningful relationships.

The results in CQS showed HCPs and staff were all motivated to participate. In the Motivation Factor the results had an average increase of 3% in the "agree/strongly agree category", not because the HCPs were not motivated, but rather they were so motivated prior to the intervention that they scored high on the pre-survey, and there was little room for improvement in the post-survey. In the qualitative results the HCPs and staff talked about their participation in the activities and the also noted that if they had known about these activities earlier or if the activities were ongoing, then they would be willing to participate.

6.5 Strengths and Recommendations

The research approach could be used with other clinics, hospitals, and other organizations that provide services for Indigenous families. The research approach can be described in 4 phases with one central guiding group, the Community Advisory Committee (CAC) (see figure 4).

The CAC provided feedback on the community survey, planned and implemented the intervention, provided valuable guidance on data collection, including participation, and gave advice on how to interpret the data. I conducted the scoping interviews and identified themes or statements in these interviews that were relevant to the community. Using the CAC to provide feedback on the survey was integral to the success of the study because the HCPs and staff were invited to respond to statements that were specific to the community. The CAC was also crucial to the planning and implementation of the intervention. The CAC had full control of what activities they wanted the HCPs and staff to participate in. This led to organic and informal interactions between off reserve and on reserve HCPs and staff, as well as with Elders and community members. During the data collection phase, the CAC provided their perspectives on both the Maskwacis Specific Cultural Scale and Cultural Intelligence Scale, as well as on the interview guide that was used on HCPs and staff. The CAC also participated in the interviews

and gave valuable insights into what they felt were important lessons to be taken from the intervention.

For anyone wanting to do work to improve cultural awareness with any Indigenous community or organization, establishing and maintaining a community advisory committee is a crucial first step (Jamieson et al 2012). No one (or outsider) will know the community better than the community would know themselves.

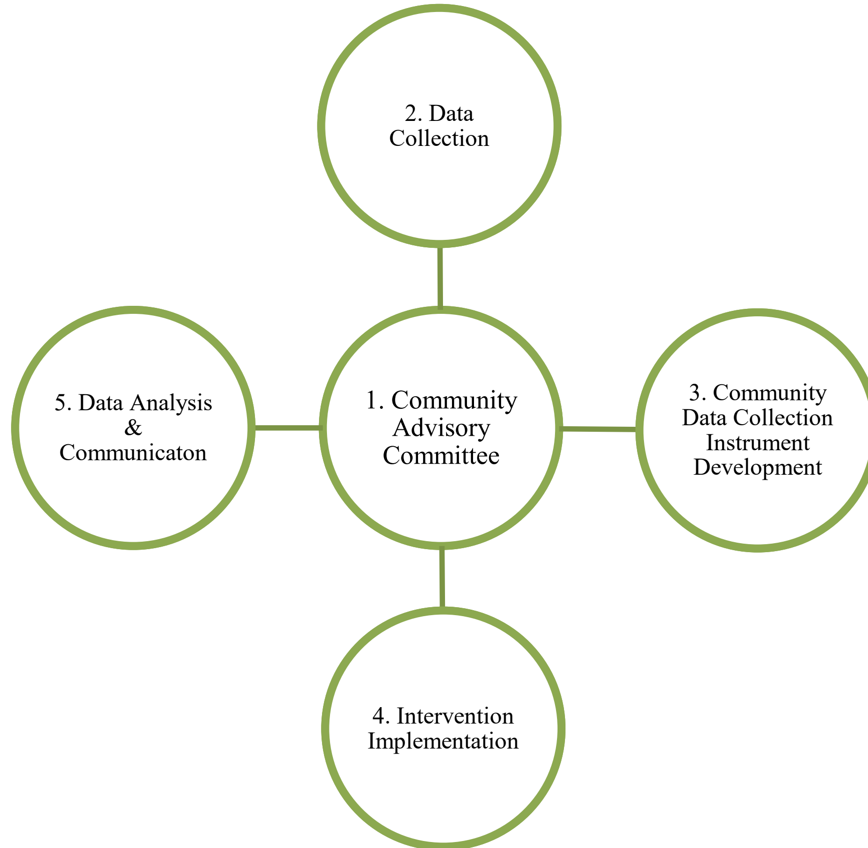

Figure 4. Community Based Research Process

The second step involves data collection, and getting feedback from the CAC on whether they wanted to collect quantitative or qualitative data or both is crucial. They also provided guidance on the survey or interview guide to be used. The third step was to develop a community-based survey and or interview guide in collaboration with the CAC. The survey can be done via scoping interviews, and by someone with qualitative research experience for the analysis, and the

interview guide can be developed by an academic team, both feedback from the CAC. The fourth step is to engage with the CAC to plan an intervention that is specific to the needs or wants of the community or organization. Going through the CAC will ensure the intervention is relevant and effective. Whether they use a didactic or experiential or their own unique approach, they will know who to engage as participants in a meaningful way. The final step is with data analysis and communication. The CAC may not have formal training with research analysis, but bringing the results back to them to discuss in a way that is inclusive, is key to ensuring the study is rigorous and meets the needs of the community. This can be done by having formal or informal meetings where everyone is the given the opportunity to provide their own perspective on the results. There also should be an ongoing conversation about communicating the results. For example, authorship should be discussed at the beginning of the study, and those authors would come to an agreement on if the results should be communicated and if so where.

6.6 Conclusion

The results show the community-based intervention was a success. The objectives outlined in the introduction were all met. Developing a community specific survey instrument yielded rich results that were appropriate and specific to Maskwacis. The use of two scales at two time points showed differences between HCPs and staff pre and post intervention, as well as differences between MHS and PCN employees. The semi-structured interviews provided valuable insights for the effectiveness of the intervention and lessons on how to move forward. Adhering to the community specific CBPR principles developed by the CAC made sure the intervention was planned and executed appropriately.

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Appendices

1. Cultural Intelligence Scale

Metacognitive CQ

MC1 I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.

MC2 I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.

MC3 I am conscious of the cultural knowledge I apply to cross-cultural interactions.

MC4 I check the accuracy of my cultural knowledge as I interact with people from different cultures.

Cognitive CQ

COG1 I know the legal and economic systems of other cultures.

COG2 I know the rules (e.g., vocabulary, grammar) of other languages.

COG3 I know the cultural values and religious beliefs of other cultures.

COG4 I know the marriage systems of other cultures.

COG5 I know the arts and crafts of other cultures.

COG6 I know the rules for expressing nonverbal behaviors in other cultures.

Motivational CQ

MOT1 I enjoy interacting with people from different cultures.

MOT2 I am confident that I can socialize with locals in a culture that is unfamiliar to me.

MOT3 I am sure I can deal with the stresses of adjusting to a culture that is new to me.

MOT4 I enjoy living in cultures that are unfamiliar to me.

MOT5 I am confident that I can get accustomed to the shopping conditions in a different culture.

Behavioral CQ

BEH1 I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.

BEH2 I use pause and silence differently to suit different cross-cultural situations.

BEH3 I vary the rate of my speaking when a cross-cultural situation requires it.

BEH4 I change my nonverbal behavior when a cross-cultural situation requires it.

BEH5 I alter my facial expressions when a cross-cultural interaction requires it.

2. Maskwacis Specific Cultural Scale (MSCS)

I feel that I am fully aware about the culture of Maskwacis

I feel safe and welcome when experiencing the communities of Maskwacis.

I feel that I can communicate well with individuals from Maskwacis.

I feel that I have a good understanding of the reasons some women from Maskwacis may miss appointments and/or not come in for care.

I feel that I am able to adapt easily when interacting with pregnant women from Maskwacis and their partners when needed.

I feel I have an appropriate amount of knowledge about the resources available to support women and their partners in the different communities of Maskwacis.

I feel I am aware of the historical processes that influence health and culture within Maskwacis today.

I feel that I am aware of my own biases when interacting with pregnant women from Maskwacis.

I am aware of my body language when interacting with individuals from Maskwacis.

I feel that relationship building and maintenance plays a key role in enhancing cultural security.

I feel that self-reflection is important in interacting with individuals from Maskwacis.

Demographic Characteristics

What organization are you from?

a. Maskwacis Health Services

b. Primary Care Network

c. Other:________________________________

What is your role?

a. Physician

b. Nurse

c. Dietitian

d. Pharmacist

e. Behavioural Health Consultant/Mental Health Worker

f. Support/Administrative Support

g. Managerial

h. Other:________________________________

3. Do you interact with pregnant or postpartum women in your role?

3. Healthcare Provider Interview Guide

Preamble

The purpose of this interview guide is to gather healthcare provider perceptions of the cultural awareness activities that took place over the past four months. The first section is designed to ease the participants into the interview and allow them to describe their approaches to prenatal care and what a typical visit may look like. The second section is to see if the intervention activities were effective or not, and give insight into future directions. The third section is a wrap up for the participant.

Section One

1. How many families do you see in your care? How many of them are First Nations?

2. What would a typical visit with a family look like?

3. Are there differences in your approach to prenatal care for First Nations families compared to non-First Nations families?
   - If so can you describe them?

4. What significant challenges, if any, have you experienced when working with First Nations families during pregnancy?

5. From your experience what approaches have worked best when working with First Nations patients regarding pregnancy.

Section Two

Now I am going to change gears a bit. The purpose of our activities was to provide an opportunity to learn about and experience Maskwacis. The activities included lunch and learns, attending a pow wow, a sweat lodge ceremony, and a feast.

6. What cultural activities did you attend? Can you tell me about you experience in taking part in these activities?

7. Thinking back were these activities meaningful, and if they were, in what way(s) were they meaningful?
   - For those that were not meaningful, please describe why they were not.
   - What do you think could have been done to make them more meaningful or better?

8. Do you think these activities allows you to work better with families from Maskwacis? If so how?

9. Do you feel more comfortable working with families from the community Maskwacis after your experiences?

- Do you feel building relationships with families and others from Maskwacis is important? If so, why?
- How do you think participating in these activities has or has not helped you build relationships with families or others from Maskwacis?

10. In your opinion what could have been done to improve the overall experience of these activities?

11. What, if any, were some of the barriers you faced that might have stopped you from attending the activities?

- In the future how could those barriers be addressed?

12. In the future would you be interested attending more activities in Maskwacis? Or to be more involved in the community? Why or why not?

13. In addition to the activities that were part of this project, what else do you feel would help you in working with First Nations women?

14. After attending some of the activities in the past 4 months what practical knowledge or skills could be implemented at your clinic that would help you interact with families from Maskwacis?

15. After your cultural awareness experiences with Maskwacis what kind of advice would you give another care provider that is working with pregnant First Nations women?

Section Three

16. Is there anything else you would like to add to our conversation today? Something we have missed?

17. You've given us a lot to think about – thank you. Would it be possible to contact you again in the future for possible follow up and a debriefing?

4. Facilitators Interview Guide

Preamble

Different individuals from Maskwacis facilitated the different activities. The interview guide is developed to capture the facilitators/elders perceptions of the intervention activities and get their perceptions on if the intervention was effective or not.

1. Describe you role as an Elder in the community of Maskwacis?
2. Tell me about the activities that you facilitated/participated in?
3. Ranking from most important to last, what activities were most important?

- What aspects of each activity would say were least important?

4. Did you feel that these activities were meaningful for the healthcare providers?

- Or the community?

5. What, if anything, we could have differently in these activities to make them more meaningful?
6. What are some of the challenges of sustaining meaningful interactions between healthcare providers and the community of Maskwacis?
7. How would you describe our project to a healthcare provider/community member?
8. What are some ways we can get the community more involved with projects like ours?
9. Tell me about any previous programs or initiatives that have worked well in building relationships between healthcare providers and Maskwacis?
10. Looking forward, is there anything you would like to see happen with healthcare providers individually or at the system level?
11. In the future, what community events, experiences, or activities would like to see healthcare providers take part in?
12. Healthcare providers brought several barriers such as time commitment, scheduling, and other obligations; what are some practical solutions to these types of barriers?
13. Is there anything else that you would like to add to the conversation today? Anything we may have missed?